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REPORT

OF THE

SELECT STANDING COMMITTEE

ON

AGRICULTURE AND COLONIZATION

FIRST SESSION, TWELFTH PARLIAMENT

1911-12

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1912

[App. No. 3—1912.]

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MEMBERS OF COMMITTEE.

(J. A. SEXSMITH, Esq., *Chairman.*)

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Armstrong (Lambton),
Armstrong (York, O.),
Arthurs,
Ball,
Best,
Boivin,
Bourassa,
Bowman,
Broder,
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Burrell,
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Warnock,
Webster,
Weichel,
White (Renfrew),
Wilcox,
Wilson (Laval),
Wilson (Wentworth), and
Wright.

The Select Standing Committee on Agriculture and Colonization beg leave to present the following as their

THIRD REPORT

Your Committee have had under consideration during the current Session of Parliament, the subjects of agriculture and immigration; and, for the information of the House, herewith report the evidence taken by them in connection with the said subjects.

All of which is respectfully submitted.

J. A. SEXSMITH,
Chairman.

House of Commons
March 13, 1912.

ILLUSTRATION FARMS OF THE COMMITTEE ON LANDS

HOUSE OF COMMONS,

ROOM No. 34,

THURSDAY, January 25, 1912.

The Select Standing Committee on Agriculture and Colonization met to-day at 11.15 o'clock, a.m., the Chairman, Mr. J. A. Sexsmith, presiding.

The CHAIRMAN.—Gentlemen, the time for commencing our proceedings has arrived, and I take much pleasure in introducing Dr. James W. Robertson, Chairman, Committee on Lands, Commission of Conservation, who will speak on some of the results obtained from the survey of farms conducted by that committee, more especially with reference to the Conservation of (*a*) Fertility, (*b*) Labour, and (*c*) Health. I am sure you will be delighted with Dr. Robertson's address and I hope and trust that excellent results will flow from it. This Committee, I think, has accomplished a great deal of good in the past, but I feel that more remains to be done. At some future occasion when we shall have more leisure at our disposal for discussion, we may be able to take up some of the problems that confront us and arrive at suggestions of a practical character, which will be helpful to the great industry of agriculture. I now call upon Dr. Robertson to address you.

Dr. ROBERTSON.—Mr. Chairman and Gentlemen, I welcome this opportunity to come before the Committee and to associate myself with it in the consideration of means for the improvement of agriculture and the progress of rural interests generally. It is well over twenty years since I first had the honour of appearing before this Committee, and ever since that time I have observed something of the great service which the Committee has been rendering to Canada. While I was the head of a college, I commended the reports of this Committee as one of the best means of giving the students a knowledge of the progress of agriculture in Canada. The reports are not merely of historical value. They are full of suggestions and information for the men who live on the land and also for the men who serve them as instructors and in other professional capacities. I hope I may be permitted for many years to contribute my quota to the reputation of this Committee by the quality of the service it will continue to render to the people of Canada.

SURVEY OF FARMS IN 1910.

The subject of which I am to speak this morning arises out of a survey of farms conducted by the Committee on Lands of the Commission of Conservation. The Commission of Conservation was constituted, as you know, a few years ago, to take into consideration all questions that have to do with the conservation and better utilization of the natural resources of Canada. It is called upon not merely to make inventories, to collect and disseminate information, but also to conduct investigations with a view to discovering how the natural resources could best be utilized and conserved. The Commission itself is an important body of citizens. It is composed of three members of the Federal Government, nine members of the Provincial Govern-

ments, and twenty other men chosen because of some peculiar fitness, from experience or training or position, to render good service to Conservation. The Committee on Lands is composed of eight of these members, together with the ex-officio members. The present work of the Committee on Lands of that Commission is an investigation as to how the resources of the farms can be utilized and conserved in the very best way. When the Commission held its first meeting in 1910, the Committee on Lands made a provisional report to this effect: That it should begin its work by the collection of information by investigations and by the testimony of farmers and others, (*a*) as to whether agricultural lands are being depleted of fertility or are being improved in that respect, and (*b*) as to whether there is a dangerous prevalence of weeds and other hindrances to the progress of profitable farming. That was to be one part of our work—one of the six parts—and that is the part I propose to deal with this morning.

The investigation was begun during 1910, when 985 farms were visited and examined. It was not considered a good plan to confine an investigation of a matter like this to a few areas or to small areas. From such sources the information might be so incomplete as to be misleading and of little value. Therefore, 985 farms were examined in 1910 on the basis of about 100 in each province, and in groups of about 30 or more farms adjoining each other in each district. The examination was undertaken with the co-operation of the Provincial Departments of Agriculture, and they suggested the names of men whose knowledge of local conditions enabled them to get into close touch with these farmers. The information obtained was the joint result of the observations of the collector, and of the farmer himself. The main impressions left on our minds from the first survey may be stated in two sentences: While a systematic rotation of crops is essential to permanent good farming, on only nine per cent of all the farms examined was such a plan followed in 1910. And the reports revealed in detail, in such a manner as to carry conviction, that weeds are very prevalent—dangerously prevalent. That is a very grave state of affairs.

After recent observations in the United Kingdom, and also in France, Switzerland, Germany and Denmark—and to enable me to get more complete and useful knowledge of the rural conditions in these countries, I travelled by road over 3,000 miles in June, July and August—I was very much impressed with the notable differences between the appearance of the farm fields in Europe and in Canada. A real weedy farm, with the exception of one limited area in Bavaria, was an uncommon spectacle. On the other hand, if you take the train from Ottawa to Montreal, or from any other centre in Canada for a distance of fifty or a hundred miles, to see reasonably clean farms or fields, that seem so to your eyes from the windows of the railway car, is the exception rather than the rule. I make this point now: in those countries and on those lands where weeds are kept in check or are becoming less harmful, some systematic rotation of crops is the common practice; and in our country where weeds are increasing in the most alarming way, a systematic rotation of crops is the exception—amounting to only nine per cent of the 985 farms visited in 1910. The survey in 1910 brought out this conviction from the summing up of the information obtained: that if farmers on the average had carried on their work according to the systems and methods followed by fifty of the best farmers whose farms were examined, they would have doubled the output of their crops from the same area. That is one of the convictions borne in on my mind, one of the convictions leading to hope, from the survey in 1910.

SURVEY OF FARMS IN 1911.

In 1911 we made a more extended survey. We had the advantage during the whole of 1911 of the services of Mr. Nunnick, the Agriculturist to the Commission of Conservation. The members who serve on the Commission, and on the Committee

on Lands, at best can give only a limited amount of time to its work. We are not paid officers. We give what time is necessary and give it cheerfully, but we cannot devote week after week or day after day to this work. By Mr. Nunnick's activity, a more complete co-operation was brought about between the Commission and the various agricultural colleges. Six districts were chosen in Ontario, six in Quebec and three in each of the other provinces. Where practicable, the same districts were continued that had been surveyed in 1910. In thirty-three districts, 1,212 farms were examined. Our collectors of information visited (in round figures) 100 farms in each province, plus 200 additional in the large Province of Ontario, plus 100 additional in the Province of Quebec. The farms in each district were practically in a block, touching each other. The information from each farm was put on a schedule for that farm. The printed schedules were used to enable the collector and the farmer to record their opinions in compact form for comparisons and for compilation. It provided records of information under four groups of headings, viz:—

I. Rotation of crops, seed, manure;
II. Weeds, insects, diseases;
III. Fuel, power, water; and
IV. Instances of good farming.

FUEL AND WATER SUPPLY.

I find that I will not have time to deal with the information obtained on the fuel and water supply, at any length this morning, so I will make one or two remarks regarding them now.

It is most important in a country like Canada, depending in a large measure for its fuel upon foreign sources of supply, that at least the rural population should have its fuel from land under its own control. It would be a great safeguard against any possible event which might occur The care of the farmers' wood lots for fuel purposes is beginning to receive attention. The planting of suitable areas to ensure a supply of fuel in future years is not being undertaken. Does this condition reveal any need for co-operation between the individual farmers and municipal or provincial or Dominion authorities? Is it desirable and practicable that the initial expense should be shared and the resulting revenue also shared? It takes a great many years for trees to grow. The life of the individual is comparatively short; and the life and needs of the community are very long. In this matter we need the long vision and the willingness to incur a long investment of a comparatively small sum.

From Mr. F. T. Shutt, Dominion Chemist at the Central Experimental Farm, we learn that out of several thousand farm waters examined by him, only about thirty per cent of those waters are first-class waters, fit to contribute to the enjoyment of good health. That state of things in a new, well-watered country like Canada, warns us to be careful and to make thorough investigations. Since we have an abundant water supply, pure water that is fit to drink without risk, should be used on every farm. Our survey had to do with the location of wells in relation to the house, the privy and the barnyard. It seems quite natural that a man locating on a new farm should put the well where it is most convenient. Sometimes, in order to ensure a supply of water without digging deep, the well was sunk where the ground is rather hollow, and in the course of years the ground there became impregnated with slops thrown from the house and with seepage from the privy and barnyard. This is not a particularly agreeable theme to dwell upon, but it is a necessary part of the investigation into the conservation of health on the farms. Occasionally I find myself pitched into by some ardent champion of real estate values because I persist in speaking of some of the features of Canadian conditions that do not reflect much

credit upon our way of doing things. But if a man is an honest doctor he does not smother up the symptoms in soothing palliatives. He tries to get at the root of the trouble, to get the patient to behave better and to prevent the recurrence of the disease. It is not only a question of typhoid fever, which, however, is becoming more prevalent, I am told by competent authorities, in the rural districts than in the towns. That is not the only important part of the question. I venture this in all kindness and humility, that if need be we could afford to see a number of the rural people die from typhoid without seeing much reduction in the number of our population—we could afford that dire consequence if it is one we must endure. But if you have a rural population using impure and polluted water week after week and month after month, you will get a degradation of life; you get a condition of health that becomes an invitation to diseases and debilities that are very serious. Out of this part of the survey we hope to obtain practical results in the way of some action being taken for treating the difficulty and preventing its continuation. The farmers have joined us in the most cordial and helpful way.

AGRICULTURE A NATIONAL INTEREST.

Before I come to a consideration of some details from the schedules, let me bring to your attention some matters which shed light on our problem which I have just mentioned—our problem of how the best we now do and have shall become common to all the farms in Canada. You would see in the public press the other day—I had the pleasure of receiving a copy of the monthly bulletin last night—that Canada last year had field crops of the total value of $565,000,000 at the places of production. That is a great deal of wealth called out of natural resources by the labour of farmers. That is different in its effect on the welfare of the people from the increase of money values by holding real estate. The wealth represented by the crops was created out of otherwise chaos by intelligent management and labour. It is here, with us, to go around. I appeared before this Committee some fifteen years ago, to speak on a theme that was then, in my judgment, and is now of great importance to agriculture, viz., the advantages of local illustration stations or farms for the service of surrounding farmers. At that time (1897) as nearly as one could obtain information, Canada produced field crops of the value of $270,000,000. Now we produce crops of the value of $565,000,000. That increase of 109 per cent in fifteen years would have been exceedingly creditable to our management and our ability if we had not increased our acreage under crops. And part of the increase in value is due to advance in prices. The increase of acreage has been, of course, mostly in the three prairie provinces of Manitoba, Saskatchewan and Alberta. The increase in them amounts to 11,836,000 acres, and the increase in the acreage under crop east of the Great Lakes amounts to about 3,000,000 acres in the same period. The increase in the value of the field crops from the three prairie provinces from 1897 to 1911 is, in round figures, $200,000,000. This increase does not include revenues from live stock or dairy products. It refers to field crops only. The west is certainly an important portion of the agricultural area of Canada; and it has become a very important part of the agricultural life of Canada. Last year its field crops had a value ($228,033,000) equal to forty per cent of the whole production. The Committee will see that the questions of conservation, the questions of utilization of agricultural lands, are questions affecting the prosperity, the stability, of every material interest in Canada. Every one carrying on business or following an occupation in Canada is to some extent, directly and indirectly, affected by the progress, or otherwise, of the agricultural industry. Perhaps I have already referred at more than sufficient length to those salient features. I have done so in order that you might be with me, as to the point from which the question should be viewed, when considering and discussing means whereby we can do better hereafter than we have been doing. Farming is not

only an occupation to be followed by individuals for profits, but it is also a great national interest, having a dominating bearing on the fortunes of the nation, in all important ways—in the character of its population, in the possessions and prosperity of its citizens and in the permanence of opportunities for all its people to earn satisfactions in all lines of activity.

THE QUESTION OF LOCAL ORGANIZATION.

Let me return to the last page of the schedule for a moment. Of the 1,212 farms dealt with, a few emerged as instances of good farming, prominently better than others. The neighbours agree that these are better farms and that the owners of them farm better than they do. By means of the survey this year and next year, we desire to obtain more information as to the *causes* of their superiority and of their progress. Every one admits the fact that they are superior. Our survey during two years has brought out some of the causes. We desire to learn to what extent these *causes can be applied* to all the other farms. We expect that a number of these most successful farmers will be willing to furnish a statement of their accounts and of the balance sheets from their farming operations. This is not a question of compelling the information or of prying into personal affairs for no useful purpose. We have found these natural leaders among the farmers willing and anxious to co-operate for the benefit of their locality. The idea of the Committee on Lands is to get the attention of the farmers of a locality directed with expectation, not to a show farm, but to the farm or farms of which the balance sheet shows a large margin of profit and a satisfactory condition of fertility and freedom from weeds. We have found the farmers to be most friendly and helpful in all this. In the second year, many of them who had weeds and diseased plants on their farms had specimens ready for the visit of the collector. He was not an unwelcome guest, but was expected and helped in all his duties. That itself is a promise of progress in co-operation. No farmer refused the information sought. A few farmers were indifferent and thought the whole effort to be only so much useless official recording; but the bulk of the farmers saw the meaning of it and are expecting real benefits from it.

In the last sheet of the schedule we have records of instances of good farming. In each group of farms there stood out prominently a few farms as being manifestly better than the others. They were evidently better in condition of the fields as to cleanness and fertility and also in quantity and quality of the crops. The records were taken according to the scale of points; and on each group a few stand out conspicuously above the rest. In each group of about thirty farms there can be picked out two, three, and sometimes four farms which are decidedly superior in condition and in management to the other farms which were around them. The gist of what I want to lay before you leads up to this: how can we help to make the systems, the methods, and the conditions, and the results in profits, of those best farms become common on the other farms? It is not a question of creating a new Government department that I am going to speak of, it is not a question of furnishing more scientific instruction from headquarters; it is a question of local organization, of local self-help, whereby the systems and methods practised on the best farms in a locality will permeate and prevail throughout the whole locality. Some other countries are far ahead of us in that. We are just beginning to do something in that direction.

HELPFUL AGENCIES.

These men are not unmindful of the value of the agencies which hitherto have contributed to bring about as good a state of agriculture as we now have in Canada. The credit is first of all due to the farmers themselves and their families. They have received assistance from many sources. The Dominion Experimental Farms and

the various other branches of the Dominion Department of Agriculture, such as the live stock, dairy and cold storage, and seed branches, have all helped the farmers; and the men on the best farms are the ones most ready to acknowledge the help they have received. Then there are the Provincial Departments of Agriculture, whose agencies are manifold. For example, there are the Agricultural Colleges, with all their extension work. The Province of Ontario now has some 100 trained and competent men travelling through the province doing instructing work. That is good, but in my judgment it is only a beginning. I offer you a little illustration. Twenty-six years ago, when I went to the Ontario Agricultural College as Professor of Dairying, I was the only official dairy instructor in the province. Last year the province had thirty dairy instructors. Consider how the Ontario dairy business has grown, not merely in volume of products, but also in improvements in methods and in the quality and reputation of its cheese and butter. I maintain that those thirty instructors in contributing to the enhanced prosperity of the province, were worth their salaries many times over. The illustration dairy stations, the cool curing rooms and the cold storage railway cars were all contributing factors. Undoubtedly we are making a good deal of progress. Professor C. C. James, Deputy Minister of Agriculture for Ontario, has said that the province has entered upon a great upward movement; and our records from the Ontario farms confirm that statement. He predicts that it is possible to double the field crops of Ontario in ten years, and there are instances where that has been done The question is, can the same or similar means be effectively applied on other farms?—On practically all other farms? That is the crux of the problem. What are we going to do about it? Are we going to stand still and say: That is the indifferent farmer's own business; he that is indifferent, let him be indifferent still? Or shall we go together on the level of a united effort in each locality, organize ourselves for action in the locality, select the best managed farm or farms in the neighbourhood as illustration farms, whereon we may investigate the means for progress and for betterment. In that case, the natural leaders will emerge out of the united neighbourhood effort. Through these farms, new co-operations will be established with other neighbourhoods and with Government agencies like Experimental farms, official instructors and educational institutions.

COMPARISONS WITH TEN YEARS AGO.

Let us now consider the information obtained as to the yields of crops in the various provinces as compared with ten years ago. From Prince Edward Island 51 per cent of the farmers report an increase. That is good. I can recall the time when the Province was going down. Then the farmers went into growing clover, having some rotation of crops, developing dairying, using better seed grain, &c., with the result stated above. From Nova Scotia 49 per cent of the farmers, from New Brunswick 24 per cent, from Quebec 39 per cent, reported an increase as compared with 10 years ago; and from Ontario 24 per cent reported an increase of 50 per cent in ten years. When we come to Manitoba, it is not surprising that from 100 farms not one farmer reports any increase as compared with ten years ago, and not one farmer reports any increase as compared with twenty years ago.

By Mr. Schaffner:

Q. What does that statement mean?

A. One hundred farms were surveyed, and our collector of information took the opinion of the farmers themselves. He practically said: 'How are your crops, how is the fertility of the soil, compared with ten years ago? Are you going up or standing stil or going down in respect to the rate at which your farm yields crops?'

Q. By the acre?

APPENDIX No. 3

A. On the whole farm by the acre. Of the hundred farmers in Manitoba, 46 per cent reported a decrease since ten years ago, and 50 per cent reported a decrease since twenty years ago. These farms are in the older settled parts of Manitoba. The results are not surprising, because in that Province it has not been the practice to grow any gathering crops such as clover, beans or alfalfa, or any grass crops, in between the crops of grain. The farming has consisted in this kind of rotation; two years of grain and one of summer fallow, or three years of grain and one of fallow. What does summer fallow treatment do? It helps somewhat to clean the land from weeds, it conserves the moisture, and it destroys some of the elements of fertility. It destroys the fibre in the soil which is needed to hold loose particles of soil in position in the spring. Whole districts are menaced by the winds blowing the soil and the seed off the fields. The conditions of farming, the soil, the population and climate combine to perpetuate the kind of rotation which consists of two or three years of grain and one of fallow, with no crop in between that either gathers nitrogen or leaves the plant fibre from root, stems and leaves in the soil to hold it together. I do not want to be understood here, or quoted elsewhere, as blaming the farmers of Manitoba. The best farming there so far has followed in the main the only known lines for making profits by growing wheat. And out of that, and particularly out of the neglect of weeds in the older districts, conditions have been created which call for earnest consideration and action. It ought not to be a case of shutting one's eyes and asserting: 'You must not say one word about such a matter as that, because the statements will damage Manitoba.' Manitoba and the other prairie provinces do not need, and I am sure the farmers do not want, the false protection of such silence. The Provinces would damage themselves in perpetuity by shutting their eyes and maintaining silence in the presence of serious dangers to good farming which protects the fertility and cleanness of the fields; whereas the other course would help them to adopt methods towards conserving their heritage and ours, while obtaining good crops and good profits.

By Mr. Schaffner:

Q. What has the Experimental Farm at Brandon been doing all these years that it has not determined this matter for the farmer and given him some information?—

A. The Experimental Farm at Brandon has been doing a great deal. It has been engaged in experimenting with the growing of clovers, but it takes a good while to prove out systems and methods under new conditions and have them seasoned by experience. Some years ago Mr. S. A. Bedford, Superintendent at the Brandon Experimental Farm, did an immense amount of missionary work in agriculture, going among the farmers and informing them according to his knowledge and lights; and I should be happy to see Mr. Bedford in a position to use in a wider way the increased knowledge and light he now has. But while the Experimental Farms have been carrying on experiments and discovering some results on the Government Farms, hardly any body has been going to the farmer who has been farming for profit, and asking: 'What have you discovered?' If you have 1,000 of the most successful farmers, each experimenting for profits on his own farm, with the benefit of scientific counsel from experts, they will find out much of real value to the practical farmer; and they will be the men who will send to the Experimental Farms for more information and more light. By all means let us get the double light on the difficulties of the indifferent farmer, the light from the experimental farms made effective by the local illustration. I cannot impress this as deeply as its importance merits, but I want to impress it as deeply as I can this morning.

EXAMPLES FROM EUROPE.

Let me turn here to an illustration which comes to me when I think of agriculture in England. As far as the meagre and imperfect records show, the yield of

wheat on English farms was about 26 bushels to the acre 400 years ago. Then it went down until some of the records—I do not know whether the records are wholly reliable—point to a rate of between 8 and 10 bushels per acre some 200 years ago. From that time on they began to make improvements and progress; on some estates it became a rule that a farmer must follow a systematic rotation of crops. The chief means for restoring and improving English agriculture was a rotation of crops with a clover or a bean crop in between the grain crops Now the rate of yield in England is from 32 to 34 bushels of wheat per acre. That is a glance at experience spread over a period of four hundred years. From want of a good system of farming, the yield per acre went down to an exceedingly low level, and by the adoption of good systems and methods it has been raised to a high level.

From the long cultivated lands in Germany, there is a yield of some 10 bushels to the acre more than there was 30 years ago, as the result of the application of more intelligent methods and better management. In Hungary, on one of the large estates of which correct records have been kept, the increase in the yield per acre has been remarkable. Between 1851 and 1860 the yield of wheat was 10·9 bushels to the acre, and between 1891 and 1900 the average yield of wheat was 30·3 bushels to the acre. During 1851-1860 the yield of barley was 14·7 bushels to the acre; during 1891-1900 it was 43·9 bushels to the acre. The yield of oats was 17·1 bushels to the acre as against 51·3 bushels to the acre The yield of Indian corn was 21·3 bushels to the acre during the former period, as compared with 41·6 bushels to the acre during 1891-1900. This has been brought about by intelligent and intensive cultivation instead of by following primitive methods.

TO BRING ABOUT ASSOCIATED EFFORT.

From the Experimental Farms we learn that a great deal of use is being made of the information by the intelligent wide-awake farmers. Professor James, a very competent authority on such subjects, says that the age of talking to farmers has gone by the day of demonstration is here. There is a difference between talking about agriculture, even in a most interesting way, and showing the farmer the application of systems and methods on an illustration farm managed for profits in such a way that he will understand, and want to do on his own farm, what he has seen being done on the other. We have not yet established the contacts between the local natural leaders in farming and the other farmers, such as prevail all over Denmark, for example. A farmer in Denmark who discovers anything from his farm whereby he obtains better crops, cleaner land and more milk, passes the knowledge on and the whole neighbourhood is ready to receive it. We must begin to correct our separatenesses, our isolations, our want of cordial co-operations. You cannot correct those by bulletins or by speeches. The way is to get the farmers to come together and do something for themselves and others, something definite, something they can see and understand—something that they can use for their own benefit. When each becomes a co-operating partner in some definite undertaking for the good of the locality, all grow strong in associated effort.

SYSTEMATIC ROTATION OF CROPS.

I come back again to some of the salient points of information obtained by this investigation—this survey of farms.

Dealing with rotation of crops, what have we found? We found first of all that in many localities the farmers did not know the real meaning of the phrase. You know I am reluctant to say anything that would seem to throw the shade of even a thin shadow of a suspicion on the knowledge and ability of our people. When they do not know the meaning of the phrase—systematic rotation of crops—I ask myself: Why should a farmer know if he has not seen and done the thing for which the phrase

stands? It is one thing to have lip ability to utter a phrase and another to have the knowledge of its meaning from experience of the reality it stands for. A systematic rotation of crops helps his farmer to spread his work over nearly the whole year, and that is a good thing. It helps in the cleaning of his land. By having a hoe or green fodder crop growing in rotation, he keeps the land clean for the sake of the advantage to that crop. I confess there are not many farmers who are willing to cut weeds just for the sake of seeing the land clean. That is not a state of mind and action easy to bring about. That may be why our weed suppression laws are nearly all dead letters. You can hardly get a man to go and cut weeds for the sake of seeing the fields clean; but he will keep his fields reasonably clean if he finds that the practice of doing that pays for the labour in the immediate crop. That is where the systematic rotation of crops comes in as an effective means of cleaning land. Its adoption will not dispense with all need for legislation on weeds, but it will make the application of our knowledge effective towards keeping down weeds. Systematic rotation provides for a variety of products and it results in a large increase in the yield per acre of every one of the crops. Mr. Grisdale, now Director of Dominion Experimental Farms, gave the committee an address on that subject last year, and has spoken many times concerning the immense increase in the yield of crops from this practice. At Rothamsted, in England—the first agricultural research station—where the experiment was conducted for 32 years between growing wheat and other grain crops in rotation, with a clover or bean or grass crop in between once every four years, and growing grain crops continuously, the gain was 114 per cent in the yield per acre of wheat from the systematic rotation which included clover or beans. The meaning of systematic rotation of crops is to have this sort of thing going on: that each crop is grown in such a way as to make and leave the land better for the next crop. That is the means of progress and of conserving fertility.

How many farms out of the 1,212 surveyed, followed a systematic rotation in 1911? Out of 100 farms in Nova Scotia there was systematic rotation on just eight; in Prince Edward Island, on six; in New Brunswick, on thirteen; out of two hundred farms in Quebec, on just eight; and out of three hundred farms in Ontario, on 159. In Manitoba there was none except the rotation with grain and fallow of which I have spoken; in Saskatchewan and Alberta, none, and in British Columbia, 11 out of 100.

Q. How do you account for that in the three Prairie Provinces?

A. Up to the present time no one has applied in a large way the growing of clover, the growing of corn, the growing of roots, or the growing of any grass crop in between the grain crops. A few farmers have begun in a small way on part of their farms. The problem is to have that done in a larger way on those farms and then on other farms and so spread over the Provinces.

In Nova Scotia 19 per cent of the farms had a systematic rotation on a small part of their farms. I will now give you the Provinces and percentages of farms on which there were no definite plans, or systematic rotation for crops, at all. This is not from the collector's opinion, it is from the farmers' own statements of their practice. In Nova Scotia 47 per cent. In Prince Edward Island, 90 per cent had an irregular, indefinite rotation. In New Brunswick—I am speaking of those who had no rotation with any system in it—40 per cent; in Quebec 76 per cent; in Ontario 17 per cent. I have already dealt with the Western Prairie Provinces. In British Columbia there were 37 per cent without any definite plan.

You can see the gravity of the situation which all this reveals. If rotation of crops is shown by experience to be a chief means for permanently profitable farming, keeping the land clean, and giving satisfactory employment to labour, and only a small percentage of our farmers, outside of Ontario, follow it, how can we get more farmers to adopt some suitable system? They do follow an excellent system of rota-

tion of crops on our Experimental Farms—they have done so for years—but the point is how to get into touch and contact with the indifferent farmer and cause him to feel that he can do this on his own farm and get him to begin to put it into his practice.

In New Brunswick, the summary of the best farmers' judgment is that where a four or five year rotation is followed the results are far ahead in every respect of those farms where no systematic rotation was adopted. In Nova Scotia a good many farmers reported they were intending to begin this practice. On a few farms where systematic rotation was followed the farmers reported they had obtained results of from two to three times as much feed for the live stock as they had previously obtained from their farms. In Quebec systematic rotation prevails on comparatively few farms, except in Huntingdon County, where it is rather general. The farmers, for instance in Bellechasse and L'Assomption acknowledge the value of the system in theory but few make a practice of carrying it out on the farm; and the consequence is that from these and other counties they report that weeds are getting very bad. Take a few items from the reports from the Province of Ontario. In the county of Dundas a great many have not considered the meaning of systematic rotation of crops as applied to their own farms. In Lanark County most of the farmers follow it on some part of the farm. In Ontario County a few follow a well planned system, most follow plans indefinite and irregular. They admit that shorter rotations are coming into use and are of advantage. In Waterloo County some farmers follow a systematic plan. Any one who knows the Province of Ontario can almost trace the agricultural prosperity on the lines of the areas where systematic rotation of crops is followed. There you find the best buildings, the cleanest land, the largest crops, and the most prosperous and contented farmers. Apart from the systematic rotation of crops, or as a part of the practice in carrying out the system, an increasing number of farmers are following an after-harvest cultivation of fields to kill weeds and to put the soil into a good condition of tilth for the following crop.

SEED GRAIN.

Some information has been obtained as to the use of seed selected according to some system. Since Mr. Newman, of the Canadian Seed-Growers Association, is to address you on this subject in the near future, I will not take up time to-day by discussing the subject, beyond saying it is becoming a somewhat general practice for a farmer to choose a part of the crop which is particularly good and clean, to cut and store that portion by itself, and to use the grain from it for seed. That is a most excellent practice as far as it goes. However necessity for improvement is shown by the fact that some farmers reported that they sowed half a bushel extra per acre of common feed grain to make up for the dirt and the weeds it contained. How can we get at such farmers, and others far less careless, except by somehow inducing them to associate themselves with the best farmers in their locality, to watch how they manage, to get advice from them and then to seek to put into practice what they have learnt. Seeing that the seed is reasonably clean and vital is not going far enough. The best farmers select strains of seed of fine quality for the market, strains with vigor in the plants which enables them to resist the attacks of rusts, and strains which have been proven to be suitable for their kind of soil and their locality and to be more than usually productive. May I cite two cases to make very clear the fact that immense improvement to Canadian agriculture is practicable by the systematic selection of grain for seed. One farmer told me that he had sold 15,000 bushels of wheat from his farm since harvest of 1911 at $2 per bushel; and the men who got it will be, I am sure, immensely satisfied with the results on their own farms. He could not nearly meet all the demand. The farmer who took that thousand dollar prize in gold for the best wheat in America at the New York 'Back to the Land Exposition,' the other day was a Canadian, Mr. Seager Wheeler, of Rosthern, Sask. It

won out as the best specimen of wheat grown in America—as judged by American experts at an American Exposition. It was awarded the $1,000 prize in gold. The original was a wheat bred and selected at the Central Experimental Farm. After Mr. Seager Wheeler obtained it he applied the system of selection according to the rules of the Canadian Seed Growers' Association; and he has written to the Secretary of the Association gratefully acknowledging the benefits he derived.

USE OF CLOVER SEED.

Few farmers sow enough clover seed with their grain crops. Many farmers use three pounds of clover seed per acre; some use five and a very few use 10 or 12 pounds. The farmers who use 10 or 12 pounds report that they get far better results than from the smaller quantity of seed. The schedules show the percentage of the acreage of grain crops which are seeded with clover. In Nova Scotia it is 60 per cent, in Prince Edward Island 57 per cent, in New Brunswick 50 per cent, in Quebec 74 per cent, in Ontario 45 per cent, and in British Columbia 42 per cent. There has been an immense improvement in that respect during the last ten years; but there is need for progress in the direction of using more pounds of clover seed to the acre.

A CASE OF SMUT IN OATS.

Diseases of plants are becoming in some districts a menace to profits. Some farmers are preventing such as smut by the treatment of the seed grain. However, neglect is evident in that respect. A striking illustration of that was given in the county of Dundas when the Agriculturist was there. He discussed with the farmer the question of diseases of plants and whether he was troubled with smut in his oats. The farmer replied that it was no trouble to him, that smut did not bother him at all. Mr. Nunnick examined the crop in the field in which they were then standing, and without moving his position reached out and picked 43 heads of smut. That farmer's eyes were opened. It was a revelation. Hereafter he will treat the seed grain to prevent smut.

WEEDS A NATIONAL DANGER.

A few words about weeds. The survey shows that they are not merely a serious menace but an increasing menace in the older provinces as well as in the newer ones. The Russian sow thistle is a case in point. It is reported as coming into the county of Lanark, only six years ago. The records show that it has already become so firmly established that farmers say some farms will have to be abandoned. You would not think that to be an exaggerated way of putting it if you had seen some farms I have myself observed. I do not know of any weed introduced into Canada that at all approaches the Russian sow thistle for the damage it does, and the persistence with which it spreads.

By Mr. Webster:

Q. In what section of Lanark was that?

A. I cannot say which farm it was.

Q. I understood you to say you had seen some of the farms?

A. I have seen the condition of other farms, but not those to which I refer as having to be abandoned.

In Waterloo County it is becoming serious. In Ontario County some farmers say they are controlling it by means of rotation of crops. It is reported from 42 per cent of the farms in Nova Scotia, from 89 per cent of the farms in Prince Edward Island, from 15 per cent of the farms in New Brunswick, from 62 per cent of the farms in Quebec, from 56 per cent of the farms in Ontario, from 30 per cent of

the farms in Manitoba, from none in Saskatchewan and Alberta, and from 17 per cent in British Columbia. It is a great evil and injury already, although it has been here only a short time.

Wild oats are prevalent, and especially harmful in the Prairie Provinces, where the kind of rotation that will kill wild oats is hardly at present practicable. This year our survey took in one new district in Manitoba. In the survey of farms for 1910 every farm surveyed in Manitoba reported wild oats; this year 94 per cent reported them—a few farms in the district taken in this year did not have any. One was added to the survey in Saskatchewan also. Last year, 71 per cent reported wild oats, this year 63 per cent reported it. Last year in Alberta 3 per cent reported wild oats, this year 31 per cent. It is becoming a serious national peril in the Prairie Provinces. Legislation does not stop it a bit. You cannot make either the Russian sow thistle or the wild oats take any heed of the law; and so far we have not been able to make men obey the weed laws. If they have to cut the weeds merely for the sake of making the place clean, or to obey the law, the weeds continue to multiply. The incentive to cut weeds is profit from the crop in which they begin to grow. The problem is difficult, difficult in the extreme. Local co-operation, local investigations of practicable means, may bring light and remedies.

In some places weeds in the pasture fields become such a menace that, as in the county of Brome, the orange hawk weed has reduced the carrying power of the pasture fields by one half in less than ten years. There is as yet in practice no way of killing it that is economical and effective.

By Mr. Bowman:

Q. What is your experience with bindweed?

A. It is quite bad and increasing in three provinces, I think.

Q. Do you not think it is a worse weed than the Russian sow thistle?

A. Well it, and the stink weed, together with the Russian sow thistle and wild oats are about four of a kind in weeds.

SCARCITY OF LABOUR.

Before I come to the last part of my theme, I have one or two remarks to make on the question of farm labour on which also we made inquiries. It would be easy, one will say, to do all this sort of thing, to have systematic rotation of crops, and to destroy weeds if farmers had enough labour available at wages they could afford to pay. An answer in part to that is, we must in any case apply the labour we have in such a way as to make it effective and then seek to improve local conditions as much as possible so that farmers will be able to employ labour the whole year. The report comes that where farmers employ hired help for twelve months they have little trouble in getting it, and if they provide a cottage they can get good help. But where the farmer employs hired labour for only a few months in the year he finds it is not the kind he wants. A man cannot live for twelve months on the wages for five months' labour on a farm, and so the farmer who is able to engage his help for only five months or less is not able to get a trained farm worker. The labour situation is one full of difficulty at present. Perhaps local organization of farmers would enable them to cope successfully with it also.

There appears to be waste from overstocking single small farms with machinery and a loss owing to lack of proper care of the machinery. Salesmen who are glib of tongue can persuade the new farmer to buy every kind of machine until he is loaded up with machinery—and notes. In consequence the newcomer gets a wrong start and when he gets in wrong at the start he is incapable of making that progress which we all desire and expect in Canada. A few illustrations by the best farmers as to the right sort of machinery for the locality, how to use it, and take care of it would be immensely valuable. That is what we learn from the farmers themselves.

APPENDIX No. 3

ILLUSTRATION FROM DENMARK.

I have kept the committee longer than I intended this morning, but I want to present the outlines of an illustration from Denmark and one from Ireland. I am not going to divert your attention from the important matters, on which I am speaking this morning, and I bring in these references to Denmark and Ireland only so far as they indicate what may be done in Canada to meet our conditions. When I went to Denmark first 25 years ago I learned that the leaders of the movement for the improvement of agriculture there recognized the value of the teaching power of the most successful farmers in the Kingdom. The Royal Agricultural Society by means of grants enabled hundreds of young farmers to learn the systems and methods of farming from many of the best farms in the country. These young farmers lived and worked and learned on these selected farms. The period might be three months or six months or a year; and sometimes a young farmer would work on two, three, or even four such farms before he returned to his own home. I, myself, visited a farm where 70 such student farmers were working. They were not going to college to be trained in the theories; they were on this farm to learn how that farmer farmed to make money.

By Mr. Schaffner:

Q. How big was the farm?

A. That farmer kept 250 dairy cows. He also grew a large quantity of sugar beets. I think he had 700 acres in that farm. These young farmers were given instruction in the theories once a week. The practice was not confined to large farms. All over Denmark the best farmers of the locality could have their farms approved and receive these young farmers who came under grants from the Royal Agricultural Society. In general the conditions were that the student farmer must work for three or six months or a year, and at the end of every period write a report to the society upon what he had seen and done and learned. In a few years the best practice of the best farms became the common knowledge of the farmers of the whole kingdom.

By Mr. Thornton:

Q. Has that system been considered very successful?

A. Yes. By means of it the best farms where the men were doing remarkably well became known all over Denmark, and more than that their systems and methods were adopted. Afterwards came the co-operative organizations for creameries, and bacon curing establishments. These co-operative societies are for managing some part of the agricultural business of the locality and not for doing the farm work. Every locality is practically doing for itself in detail what the Royal Agricultural Society did for the Kingdom long ago. I visited several localities and learned how intimate and thorough were the mediums of exchange. The community spirit which the Danes have in a very large measure—more than we have as yet, perhaps because of the conditions of their national life in the past—has been applied to the problems and difficulties of the farms; and so they have risen from poverty, from dire poverty after the war with Germany, to being regarded as the most prosperous agricultural people as a whole on the face of the earth today. I know localities in Canada where farmers are doing better than in Denmark; I know such localities also in the United States and in England and Scotland. The Danes excel in having levelled up in general; we in Canada excel in the exceptions. Take one illustration. They send large quantities of butter, bacon and eggs to the United Kingdom. They get high prices because of the superiority of the quality resulting from their methods of managing. They take out of the United Kingdom annually over eight millions of dollars more than other nations obtain for an equal quantity of the same products. They

get more, as a premium on the quality of their butter, bacon and eggs, than is spent on our whole system of rural education in Canada.

ILLUSTRATION FROM IRELAND.

I turn for a few minutes to Ireland. I am not going to trench upon the forthcoming report of the Royal Commission on Industrial Training and Technical Education or give any information from it in advance. That is reserved for our report to the Minister of Labour. Meanwhile in Ireland one could not help observing that there was a change of attitude, a change of front, among the rural population within the last ten or twelve years. The change in the experience of the farmers, in their outlook and expectations, is due to the extension of local organization among the farmers and to the diffusion among them of the practice of the best methods of the best farmers. I was much interested when the Secretary of the Department of Agriculture and Technical Institution said to me: 'Will you go to see the Colonists?' For a moment I wondered whether the Irish had begun a policy of immigration to make up for the long wide deep drain of emigration to America and Canada. Perhaps I would see on the west coast new settlements of Spaniards taking to farming in Ireland. However, we went to see the Colonists. They were Irish Colonists, who had never left Ireland, becoming settled into a prosperous community of small farmers co-operating for the common good. A large pasturing estate had been taken over under the land legislation and divided into small holdings of from 25 to 35 acres each. The Colonists, from a congested district less than 20 miles away, had had little experience in good farming. I was amazed at the character of the crops, the evidence of good farm work, the tidiness of the premises, and general appearance of the Colony. Some 250 holdings were occupied and cultivated; about 50 more were in process of preparation by the erection of buildings, &c. The Colonists become peasant proprietors. I saw them in the third year of transition—some had been there only one year—and, as I have mentioned before 50 more farms were in process of preparation on this estate. There was a demonstration field for the colony on one of the farms. There was a resident farming instructor who spent his whole time on that little colony. That was his parish. He was under one delightful inhibition or prohibition—he was not allowed to make speeches. Why? Because the department had learned that if a instructor devoted himself to speechmaking he might be explaining theories and not sticking to his job of instructing and illustrating good farm practice in the growing of crops. Sometimes he would visit as many as twelve farms a day, sometimes three farms; and if a new machine was to be started perhaps only one, when the neighbours would all come and see it. The salary of the instructor and other charges amounted to about £150 a year; and from my own observation, supplemented by some inquiry, I would say that the crops on those 250 farms were worth £3,000 ($15,000) more than would have been the case if there had not been a local instructor, and a local demonstration field. And these Colonists had got more than the increase of crops. They had got knowledge, they had developed ability and they had got the farming forces of the locality organized to keep on helping themselves afterwards. That was great. I went. I saw, I was convinced.

By Mr. Schaffner:

Q. Does the labour question give them any difficulty?

A. These were small holdings and I did not learn that they had trouble in that regard.

HOW CAN LOCAL ABILITY BE APPLIED.

I come now to the summing up of what I have laid before you this morning. How can the information gathered for the Committee on Lands from a particular locality become effective in that locality, and how can the farming ability discovered

in the locality become effective there, plus all the help these farmers can get from other sources? The farmers who are learning, learn much from their successful neighbours. That is how they learn. If we could bring about such contacts that more of them will learn, and all of them will learn more, we will have made a fine advance towards the solution of many of the difficulties. Let the farmers of the locality be invited to come together for some definite purpose in which they are directly interested in the locality. Let them agree on one farm which they will use jointly, not own jointly or manage jointly, but use jointly, for the purpose of getting useful information for themselves, for the improvement of their farm management and practice. Let them agree on some one of the best farmers and help him by discussion and counsel, and even by all kinds of criticism of his methods, to adopt the best system and methods for himself and for the locality. By this means each of the farmers who watches and co-operates would be able to apply to his own farm what he had observed and learned. That does not cost money; it costs time and labour and the exercise of neighbourhood goodwills.

COSTS OF THE SURVEY.

By Mr. Best:

Q. Does the government appropriate money to help a man who devotes his farm to this system of co-operation, in case anything should go wrong?

A. The Committee on Lands has no money to devote to that purpose. The farmer would not give his farm to the neighbourhood. He would obtain advisory help to enable him to make his farming operations more profitable to himself. The other farmers would learn from that what they most want to know—how to make their farming more profitable than it has been. The Committee on Lands has no means of giving a bonus, or money grant, to any of these farmers. The survey of farms costs a certain amount for expenses. I think last year the cost was less than $4,500. The members of the Committee do not get any pay, and do not want any pay. The collectors were paid and travelling expenses had to be met. This big survey of farms for the whole of Canada did not cost in cash more than $4,500.

Q. Do you think that is justice to the farmers of this country when only $4,500 were spent.

A. I am showing in this only the kind and extent of work this Committee on Lands is doing and the amount spent last year on this investigation. I am not referring to the amounts spent for the benefit of agriculture by the government. Speaking for myself I cannot say how much time I devoted to this work. As to remuneration I think I got my travelling expenses on one occasion, in all under $40. The ultimate object of those engaged in the work has not been to induce the government to spend money, but to persuade the farmers to get together and do things for themselves. I am sure the Minister of Agriculture will agree with me that anything we can do to get the farmers to help each other by associated effort is a good thing. They may need more help from the Department of Agriculture by and by.

ILLUSTRATION FARMS MANAGED FOR PROFITS.

To return to my summing up. For what purpose would these men agree on a farm in the locality from which to get information. In the first place I think they would agree on a farm on which they could see the kind of farming, the system and methods which were particularly profitable and successful in that locality. Therefore, the man on the local illustration farm must farm for profit. If he is put on a salary he may farm for the salary and also to furnish useful information; but that is different from farming for profits to himself from his work. The contacts with the neighbouring farmers are on a different basis. Besides I would not like, with the experience I have had, to take a farm owned by a government and maintained

by a government and try to make it pay. It would be a pretty hard thing to do. The employees would be paid by salary under the government; and the research side, the new experiment side, perhaps even the show appearance side, would outweigh the effort to make it pay. The Experimental Farms for research are properly owned and maintained by the government. The illustration farm for profits is properly owned and managed by the individual farmer in the locality. The neighbours would see and understand that kind of farming; and if they meet on such a farm once a month and talk over matters with the farmer who is their natural leader they will share the benefits. They will not take the management out of his control. He owns the farm, he farms it for his own profit, he gets the benefit of the associated criticism, and counsel of his neighbours. He should get one thing more. We are making arrangements whereby he will receive visits two or three time a year from two of the best experts on farming in the whole country. These will be visits for investigation, for counsel, for advice, for making plans, all within the means and the desire of the farmer himself.

EXPERT COUNSELLORS TO CO-OPERATE WITH FARMERS.

Further, if when those two experts go to his farm they could meet also once or twice a year the other 30 or 40 farmers associated in the movement and talk over with them the conditions and needs of the locality, every one would get something in the way of helpful information. The illustration farmer would not get money, but he would get encouragement and such inspiration to work better that he would make more money. Four things such a farm ought to do. It should illustrate the best system of rotation of crops for that locality; it should illustrate the use of selected seed grain suitable for the locality; it should illustrate the results from sowing a suitable quantity of clover seed with the grain crops; and it should illustrate after harvest cultivations in keeping with what is practicable in the locality. Out of the joint judgment of the illustration farmer and these two experts, plans would be evolved that would prove increasingly profitable. It may be asked, how would such a farmer obtain the selected seed suitable for his farm? That is what the Canadian Seed Growers' Association is for. Through it he could obtain pure seed from selected grain, which would provide object lessons for the whole locality. For a year or two the Committee on Lands, in following up its investigations, might even arrange for him to exchange his feed grain, bushel for bushel, for seed grain until he got into the use of the right strains. In a similar manner it might be arranged for him to obtain the additional quantity of clover seed required to sow at least four-fifths of the area in grain crops at the rate of 12 lbs. of clover seed per acre. By some such means there could be many local illustration farms which were yielding satisfactory profits and on which weeds were being kept down and fertility was being kept up.

I have every reason to believe from what we learned from the survey that 30 or 40 of these farmers whose farms have been surveyed would jump at the chance of co-operating towards accomplishing these benefits for their localities, not for any money, but for the satisfaction of being associated with their neighbours to help one another in that way. If something of this sort can be brought about, look at the value of the information we of the Committee on Lands would have for this Committee in a few years in the records of the progress and in the records of the balance sheets of the illustration farms. That is part of what I hope the Committee on Lands will contribute as its share, through these surveys, towards the solution of these big and difficult problems for the advancement of agriculture.

BETTER FARMING, BETTER BUSINESS, BETTER LIVING.

I do not come before this Committee either to ask for its endorsation or for its assistance to obtain grants of money. I thought it proper that the Chairman of the Committee on Lands of the Commission of Conservation should come before the Com-

mittee on Agriculture of Parliament to inform you of what we have been doing, what is to be done next, and to indicate the probable results. You will allow me to say, in conclusion, that I have lived long to have learned the value of concentration on a few things at a time, on a few definite things for a definite purpose, if one desires to get much done. I would rather come and speak to you this morning on this subject than address a crowd of a thousand people in the opera house. The particular form of leadership which this movement needs in all the localities, is interpretation of its object, its plans and its methods, in such a way as to encourage farmers to join in neigbourhood co-operations, not to secure Government grants, but to render service to each other by associated effort for better farming. When we have successfully sought these local illustration farms managed by the people themselves, I think in agricultural matters all other things will be added to us. We will achieve in the famous saying of Sir Horace Plunkett, of Ireland, himself a foremost leader in rural co-operation, 'Better Farming, Better Business, Better Living.' Then every effort of every Department of the Federal and Provincial Governments for the improvement of agriculture would be more effective and widespread. What would it mean to everybody, to farmers, to manufacturers, to merchants, to transportation companies, to professional men, and to education to have $500,000,000 a year more from the crops on the same area as the result of the improvements in agriculture? And besides this, we would be passing on this great heritage in our lands continuously enriched and improved instead of being depleted. The work of the Committee on Lands is all towards that end, and I thank you for having heard me so patiently this morning.

Committee adjourned.

Certified correct,
JAMES W. ROBERTSON.

ADDENDUM.

Schedule used by Committee on Lands in Survey of Farms.

COMMISSION OF CONSERVATION.

Agricultural Survey, 1911.

No.....

1. Lot..... Con..... Township..... County..... Province.....

Name of farmer..... P. O.....

Under field crops.....acres. Grain .....acres.

In permanent or unbroken pasture.....acres. Hoe crop .....acres.

In woods .....acres. Hay and pasture .....acres.

Rotation, Seed and Manure.

2. Does he follow a systematic rotation of crops?.....

Does he practice any of the following rotations?.....

1.	2.	3.	4.	5.
Hoe crop.	Hoe crop.	Hoe crop.	Hoe crop.	
.....	.....	.....	.....	.....
Grain.	Grain.	Grain.	Grain.	
.....	.....	.....	.....	.....
Hay.	Hay.	Grain.	Grain.	
.....	.....	.....	.....	.....
	Pasture.	Hay.	Hay.	
	.....	.....	.....	.....
			Pasture.	
			.....	

State in above columns kinds of crops in rotation.....

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3. Does he use seed selected in any systematic manner?.....

If not, why not?.....

Does he sow specially cleaned seed grain or ordinary feed grain?.....

.....

State names of varieties sown:

Wheat .....

Oats .....

Barley .....

How many acres seeded to clover this year?.....

Pounds of seed sown per acre of red clover?.....Alsike?.....

If he grows alfalfa, how much, when and how sown?.....

How does the yield of crops from his farm compare with ten years ago?.....

With twenty years ago?.....

4. Does he use manure?..... On what crops and rate per acre?.....

.....

Does he use artificial fertilizers?.....

On what crops and rate per acre?.....

.....

How does he apply manure?.....

What care is taken to prevent waste?.....

Weeds, Insects and Diseases.

No.....

5. Which weeds are most prevalent? Before name of weed the letter (A) means few, (B) numerous), (C) very bad;

(N) new to farm, (I) increasing, (D) decreasing within five years.

	A, B, C.	N, I, D.			A, B, C.	N, I, D.	
1.	....	....	Barnyard Grass.	18.	....	....	Mustard.
2.	....	....	Bindweed.	19.	....	....	Night Fl. Catchfly.
3.	....	....	Bladder Campion.	20.	....	....	Orange Hawkweed.
4.	....	....	Blue Burr.	21.	....	....	Ox-eye Daisy.
5.	....	....	Blueweed.	22.	....	....	Pigweed.
6.	....	....	Canada Thistle.	23.	....	....	Ragweed.
7.	....	....	Chickweed.	24.	....	....	Rib Grass.
8.	....	....	Chicory.	25.	....	....	Shepherd's Purse.
9.	....	....	Couch Grass.	26.	....	....	Sow Thistle.
10.	....	....	Darnel.	27.	....	....	Stinkweed.
11.	....	....	Golden Rod.	28.	....	....	Tumbling Mustard.
12.	....	....	Green Foxtail.	29.	....	....	Wild Buckwheat.
13.	....	....	King Devil.	30.	....	....	Wild carrot.
14.	....	....	Lady's Thumb.	31.	....	....	Wild Flax.
15.	....	....	Lamb's Quarters.	32.	....	....	Wild Oats.
16.	....	....	Mayweed.	33.	....	....	Yarrow.
17.	....	....	Milkweed.		....	....	.....
	....	....	.....		....	....	.....

State causes responsible for foregoing.....

....

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6. What insect pests or plant diseases injure his crop. Use letters (A) (B) (C) and (N) (I) (D) in same sense as for weeds.

	A, B, C.	N, I, D.		A, B, C.	N, I, D.	
1.	....	....	Codling Moth.	....	....	Apple Scab.
2.	....	....	Cut Worm.	....	....	Oat Smut.
3.	....	....	Potato Beetle.	....	....	Potato Blight.
4.	....	....	Pea Weevil.	....	....	Potato Rot.
5.	....	....	Turnip Aphis.	....	....	Potato Scab.
6.	....	....	White Grub.	....	....	Rust.
7.	....	....	Wire Worm.	....	....	Turnip Clubroot.
	....	....	.....	....	....	Wheat Smut.
	....	....	.....	....	....	.....
	....	....	.....	....	....	.....

Crop.	Pest or Disease.	Estimated Loss.
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Is seed grain treated for smut?.....

Fuel, Power and Water.

No.....

7. Is the fuel wood or coal?.....

If wood from farm is used, how many years at present rate of consumption will the supply last?.....

How many acres of the unbroken pasture would be more profitable if forested and utilized as a woodlot?.....

Has any planting been done, if so with what results?

.....

.....

8. What motive powers are used on the farm?.....

House and barn work.....

Field work .....

9. Is the water supply for house use obtained from well, spring, or stream?.....

Where is water for stock obtained?.....

State distance, in feet, of well or spring from house, stable, or manure dump?

.....

House supply?..... Stock supply?.....

How is water conveyed to house?.....

Is there water on tap in the house?.....

Is there a bathroom and W.C. in house?.....

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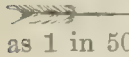
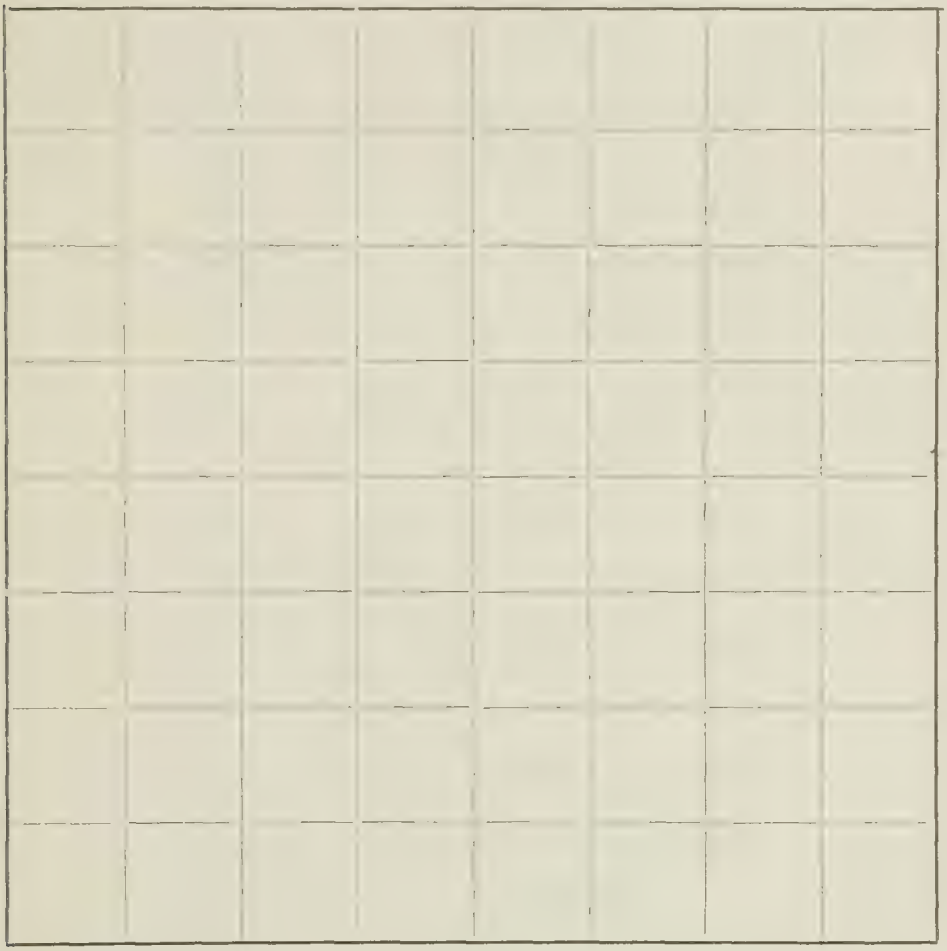
10. Plot in diagram the positions of well, spring, or stream, and the farm buildings; and indicate by arrow heads the general slope of ground in relation to the well. The area below may be taken at 400 feet square. An arrow one inch long indicates a very gentle slope (1 in 50); an arrow half-inch long, a steep slope (1 in 20; an arrow a quarter of an inch long, a very steep slope (1 in 5). (Thus  indicates a very gentle slope downwards in direction of arrow head as 1 in 50). (The rectangles are each $\frac{1}{2}$ an inch square.)



Instances of Good Farming.

No.....

(Particularly as to Rotation, Crops and Fertility.)

TOTAL POINTS:

1500

			POINTS. Possible.	Awarded.
I.	500	PLAN OF ROTATION.		
		Legumes and grasses.	100	.....
		To keep down weeds.	100	.....
		Control of moisture.	100	.....
		Distribution of labour.	100	.....
		Quality of seed.	100	.....
II.	500	CROPS.		
		Stand vigour and uniformity.	100	.....
		Yield per acre.	100	.....
		Freedom from other grains.	100	.....
		Freedom from weeds.	100	.....
		Freedom from diseases and insects.	100	.....
III.	200	PRODUCTION AND CARE OF MANURES.	200	.....
IV.	300	EQUIPMENTS.		
		Water supply and sanitation.	100	.....
		Care of machinery and implements.	100	.....
		Care of fuel supply.	100	.....
		TOTAL		

APPENDIX No. 3

Does the farmer indicate any drawback or menace to profitable continuation of any branch of his present system of farming?.....

....

....

In what branch of farming does he specialize?.....

....

Collector's remarks regarding above.....

....

....

....

....

....

....

Dated at.....,191...

.....

Collector.

NOTE.—Special sheets were used in the Provinces of Manitoba, Saskatchewan and Alberta.

THE CANADIAN SEED GROWERS' ASSOCIATION AND ITS WORK

HOUSE OF COMMONS,

ROOM No. 34,

TUESDAY, February 6, 1912.

The Select Standing Committee on Agriculture and Colonization met here at 11 o'clock a.m., the Chairman, Mr. Sexsmith, presiding.

The CHAIRMAN.—Gentlemen, the time has arrived to open our meeting. We have with us to-day Mr. L. H. Newman, secretary of the Canadian Seed Growers' Association, who has been kind enough to come before this committee and address us upon the following points: (1) Origin of the Canadian Seed Growers' Association, (2) Organization, (3) Membership, (4) Aims, (5) Work of the Association and its relation to that of the Government. It has been suggested to me that perhaps it would be well to defer discussion until after Mr. Newman concludes his address. If this were done, it would perhaps result in maintaining the connection and sequence of the points in the address. However, if you care to ask any very important question at any time, I presume that Mr. Newman will be only too delighted to reply. I will now call upon that gentleman to address you.

Mr. NEWMAN.—Mr. Chairman and Gentleman, I am sure I need scarcely say how highly I appreciate the honour, as well as the opportunity of addressing this committee on the work which I have been very closely associated for many years. While this is the first time I have been privileged to meet you, it is not the first time that the work of our association has been dealt with here. Our president, Doctor James W. Robertson, who you all know, has made frequent reference to it in previous evidences, as has also Mr. G. H. Clark, seed commissioner, with whose branch we are so closely associated in the good seed movement in Canada.

In view of the nature of the topic I think perhaps I might give you a more satisfactory exposition of it if you would allow me to complete what I have planned to say before opening any discussion.

About twelve years ago a movement was started on the initiative of Doctor Robertson to interest the boys and girls on Canadian farms in the matter of selection. The plan outlined took the form of a competition which was to continue for three years, and in which each competitor was required to operate a special seed plot, of oats or wheat as the case might be, and to select from that plot a quantity of heads or panicals from specially desirable plants. By this process of continuous selection it was hoped to effect certain definite improvement in the strains worked with and thereby provide visible demonstrations as to the practicability of systematic work in seed selection by the farmer himself. The prizes offered in this competition were given by Sir William C. MacDonald to the extent of $10,000 in recognition of which the competition was called 'The MacDonald Seed Grain Competition.' I need not detain you this morning with details of the work of this competition. These are quite fully elaborated in previous evidences given before this committee, as well as in the annual reports of the Canadian Seed Growers' Association. I might only mention that about 1,500 competitors participated in this contest, of which number

about 450 carried on the work in all its details for the three years. The results obtained by these 450 were both surprising and gratifying. For three years, under all conditions and from all plots, there was an increase of 40 per cent in the case of wheat, and of 36 per cent in the case of oats, as regards yield. There was also a substantial increase in the weight of the grain during this special period of manipulation. The varieties worked with were largely the common varieties growing at the time in the country. These varieties were more or less composite in character—that is composed of two or more strains of varying practical value thereby presenting opportunities for effecting certain improvements by separating out strains which might be less valuable, and effecting an inclusion of those which were more desirable. In the light of our present knowledge of the laws of heredity, and of the various facts and circumstances which play a part in the production of crops, it would appear that the improvement, which was effected during this competition was due first to the fact that advantageous separations were actually made, and secondly to the continous selection of seed replete with that vigor and high quality of life which is sure to reflect itself in succeeding generations. The latter factor is of course a purely physiological one and must not be misinterpreted as implying the accumulation of hereditary variations in the ordinary sense of that term.

Before passing on to consider the final outcome of this work, it might be well to pause for a few moments to consider the principles which are now recognized in the improvement of plants. Such a consideration is necessary in view of what I shall have to say later regarding the efforts which have been made to perpetuate the good work so well begun by the boys and girls. It is imperative furthermore that any system designed for the improvement of crops be founded upon sound and safe principles. Where time and money are at stake it is of the *utmost* importance that we know where work may be done to advantage as well as where the limits of progression lie. It may be well to state at the outset that it has been our constant aim as an association to direct our work along lines which are justified by the researches of our best authorities. In order to facilitate this and to keep pace with the progress of the times in these matters, I was given leave of absence in the spring of 1910 to go abroad and study the principles and methods of plant improvement which are being recognized at the leading centres in Europe but more particularly at Svalof, Sweden. Through the co-operation and good will of Mr. G. H. Clark, seed commissioner, who gave evidence before this Committee in February, 1910, regarding the general plan of work at Svalöf; I was able to spend the greater part of a year in close touch with the Swedish experts. What I shall have to say to-day therefore, regarding the principles of seed improvement and high class seed production will be based largely upon the investigations of these very competent men.

Those of you who have followed the progress and development in the breeding of more useful farms of plants and animals during the past few decades will remember that the ideas commonly held regarding the means by which improvement might be effected in all life were, for many years, founded upon the classical researches of Charles Darwin. Darwin's work seemed to show that all life is in a continuous state of unrest, varying this way or that, and that some of these variations are hereditary in character.

This being the case it seemed logical to suppose that by the selection of those advantageous variations some definite improvement might be effected in the strains worked with. It was partly upon this idea, and partly upon the idea that what was called 'vigor of growth' in the plant is hereditary and manifests itself in succeeding generations that the system of continuous selection of the best heads and panicles was based. During the past few years this conception of organic progression has undergone an almost complete change. While the opinions held by our leading authorities differ to some extent, it is now almost universally believed that true hereditary variations arise in nature as a result of natural crossing. Two individuals, belonging to different sorts or 'biotypes' as they are technically called, become

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crossed. The 'hybred' or combination resulting from this crossing splits up or segregates, in succeeding generations, leaving a greater or lesser number of different combinations of characters which manifest themselves in new forms. According to Gregor Mendel, the famous Austrian Monk upon whose epoch-making investigations modern ideas of heredity are largely based, it is only necessary that two individuals differ in ten characters to produce when crossed, over one thousand different hereditary combinations. In the light of this fact the variations of Darwin were nothing more or less, in most cases at least, than a manifestation of the phenomenon just described. While varieties of such crops as barley, wheat, oats and peas are believed to rarely cross fertilize, yet when we consider the confusion that may be created when a single crossing takes place it is not difficult to account for the composite character of many of our older varieties as found in the country. Professor Bateson of Cambridge made the statement that had Darwin understood the Mendelian annunciation which unfortunately did not appear until after his time, he would have been the very first to have understood the nature of these variations which he described but failed to define.

Since this reversion in the conception of variation, heredity and evolution, the system of selection generally practiced by experts at Experimental Stations and elsewhere has come to recognize the single plant as the unit of improvement rather than the group. A large number of plants are selected. The seed from these plants is kept separate and sown in small cultures, and by a process of elimination, based upon purely empirical methods, the number of cultures is gradually reduced until only the best remains. These separate cultures are called 'pure lines' and, in the absence of any accidental crossing, will breed true in successive generations. Since natural cross-sing takes place but rarely in our common cereals as already noticed, it would seem quite futile to attempt to effect any further improvement upon pure-lines by continuous selection. It might indeed seem a waste of time in such cases to devote any special attention to the quality and character of the seed used. In so far as being able to effect any definite improvement in the strain through the accumulation of hereditary variations this position would seem justified. But there are certain physiological factors which play a very important part in the production of crops and which merit the utmost attention. It is now a recognized fact, as well as a common observation, that seed which is perfectly matured and developed will give better results than will seed which is inferior in these respects. Such seed can be produced only on fertile soil which is in a good state of cultivation, and which is suited to the sort grown. Under such conditions vital energy of a superior order will be stored up in the seed, and will be reflected in the quality, figure and extra productiveness of the crop produced. These conditions, however, cannot always be found, to any large extent on a given farm. Indeed on many farms in Canada the areas enjoying ideal conditions are relatively few and small. This fact suggests at once the desirability of each farmer setting aside his best patch of land as a seed producing centre or plot, and that he adopt some practical system whereby the best seed from that crop, produced under these conditions, may be regularly obtained. Such a plot, of course, should be of sufficient size if possible to give enough seed to sow the main crop the following year. This is a practice which is simple of operation, yet full of promise of large gains, and one which every farmer should include in his regular system of farm management in one form or another.

The seed may be regarded as a larval plant drawing its nourishment from the mother. If the mother is poorly nourished the embryonic plant—the seed—will be poorly developed. This is simply a case of mal-nutrition. Such seed, it is found by experience, never develops into the best and most profitable type of plant. We have this principle exemplified in the runt of the swine litter. No matter how well this animal is fed after birth, it can never regain that which it has lost during the period of incubation.

So much then in favour of obtaining seed from crops *grown under favourable conditions.* There still remains something to be said in favour of obtaining the *best seed* from these conditions even in the case of 'pure-lines' which, as I have already stated seem to show practically no hereditary variation, and therefore present no opportunity for effecting any definite improvement. No matter how favourable the conditions of soil may be there are always to be found, variations induced by environment. We find here a plant which has obtained an extraordinary degree of development. Adjoining it we find another plant which, on account of some deficiency in the necessities of life—food, air, moisture—has not attained the same degree of development, and as a result bears seed which is poorly developed and which cannot be expected to give best results. Such seed can in many cases, be quite efficiently excluded by carefully grading and screening the bulk sample, but for maximum results both as to quality and purity of seed we still favour the system of head selection indicated. This, of course, is something which cannot be done on a large scale, but enough seed may be obtained in this way to sow a good sized culture the following year. In this simple manner, is provided a base of supply of good seed each year.

The principle involved in the selection of seed from favourable variations has nothing to do with, and must not be construed as implying, the transmission of acquired characters from one generation to another. That of course is an old and largely abandoned idea. The present principle simply recognizes that better crops may be obtained, by securing seed for each generation which is perfectly developed and matured. Subsequent neglect, on the other hand, is quite as surely reflected in a depreciation in quality as well as in decreased yields.

Thus far we have been considering the practicability of the continued selection of seed from pure strains. While such strains are becoming more and more common all over the country, thanks to the good work of our Experimental Stations, there are still to be found a greater or lesser number of sorts which have been under general cultivation for a considerable length of time and which are more or less composite in character. In these cases the system of continuous selection may still be regarded capable of effecting some definite improvement by separating out the poorer strains and effecting an inclusion of the better. We also have such crops as corn, which naturally cross-fertilize and which, in consequence thereof continually show true hereditary variations which, by the process I have outlined, may be turned to good account. In potatoes we have what is known as tuber variation, a type of hereditary variation which must not be confused with variation in the true seed. In the case of the latter crops, the old system of continuous selection may be expected to give good results.

The hand-selection and hand-threshing of a few pounds of heads or panicles taken from these plots each year provides seed of a degree of purity which is hardly to be expected on many farms in Canada in view of the unusual opportunities for accidental mixing which now prevail. Indeed, the operation of a special seed plot by the individual farmer *as a means of maintaining purity*, if for no other reason, is a practice which must commend itself to all thinking people. It is recommended by experts in plant breeding who from time to time have new sorts to distribute and who recognize that constant care and attention are necessary in order that the identity of such sorts may be maintained and that their true value may become fully demonstrated.

From this brief consideration of the possibilities of systematic work in seed selection, it will appear clear I think, that there is a great deal that the farmer himself may do on his own farm, and *must* do if he is to reap the full rewards of his labour. Unfortunately comparatively few farmers give anything like the attention which they should to these matters. Despite all that has been said and written regarding the great advantages, the national advantages, of the use of better seed, and notwithstanding the great amount of experimental evidence which is available

in support of the use of such seed, one has only to visit our local exhibitions, or what is more convincing, examine the grain drill on the ordinary farm at seeding time, to be thoroughly convinced that a great deal of the seed which goes into the ground each spring of a notoriously low order. The need for some definite constructive co-operation whereby the systematic selection of seed may become more general, and whereby the fellow who has been fortunate enough to produce seed of a high order may be discovered by the grower who is in real need of such seed, was simply demonstrated in connection with the work of the MacDonald competition. This need was sought to be met at the end of this competition by the organization of an Association called '*The MacDonald-Robertson Seed Growers' Association.*' The membership of this Association consisted chiefly of the parents of the competitors who had learned of the great value of attention to these matters. In 1904 the name of the Association was changed to '*The Canadian Seed Growers' Association,*' which name it still holds. Doctor Robertson was appointed President, and holds that position still. Mr. G. H. Clark, Seed Commissioner, was it first Secretary, the Department at the time not being opposed to having its officers hold office in voluntary associations such as this. A rule affecting this privilege was made by the Department later, so that Mr. Clark had to relinquish his position as Secretary. At that time, 1905, I had the honour of being appointed Secretary-Treasurer.

The number of members now actively engaged in the practice of seed selection under our direction is about 200, while about 500 altogether, are affiliated and doing more or less work. Our policy is to encourage as many farmers as we can to do better work than they have been doing, and out of the large number thus interested to discover men of a high order who, as active members, exert a very wholesome and helpful influence in their community. Our experience has clearly demonstrated that many such men are to be found if we can only reach them. Latent possibilities of immense value to the community as well as to the country as a whole, are hidden away, often in the most remote places. It is our aim to discover as many of these men as possible, and to give them such assistance and encouragement as will enable them to turn their skill and ability to the greatest possible use. One of the most noteworthy examples of the discovery of genius on the farm is that of Mr. Seager Wheeler, of Rosthern, Saskatchewan, who won the prize of one thousand dollars in gold for the best 100 lbs. of wheat grown in North America. Mr. Wheeler won his splendid victory with Marquis wheat, a cross-bred variety originated at the Central Experimental Farm. Great credit is due those who had anything to do with the creation of this wheat, a wheat which I believe will be worth millions of dollars to this country. I have here a sample of the wheat in question and shall pass it around for your inspection. While this sort was produced at the Experimental Farm, yet had it not been for Mr. Wheeler, neither that Institution nor this variety of wheat would at this moment be enjoying the high reputation which they are enjoying. The circumstances connected with the bringing out of this wheat are set forth in a letter received from Mr. Wheeler in answer to our letter of congratulation. He says:—

Dear Mr. NEWMAN.—

Your kind letter gives me much pleasure. I am sure it was well worth striving for a prize like that won at New York—apart from the $1,000 in gold—to receive so many letters from all parts of the country. After the incident is forgotten I shall still have these to store up in memory. I never forget that you gave me my first lesson in the hand selection of wheat. Before that time I had been groping in the dark trying to do my best in my own way, but the short time you spent with me was as light after darkness. From that day I saw things clearer, had an ideal in view, and am glad to say that I have noted a great improvement as regards the hand-selection of wheat. I often ponder over these things, especially when working around my plots, when I note the improvement in the types and quality of the seeds I am working on. I have ever striven for

a high quality and improvement, and have spent many long hours during the winter months poring over the different types of heads to find out the best, as far as I was able * * * * * * I feel that the experience I have gained as an operating member of the C.S.G.A., leading as it has to more careful cultivation of the soil and to the better choice of seed, has helped me to uphold the reputation of our country as pre-eminent in wheat growing.

Yours sincerely,

(Signed) SEAGER WHEELER.

This is fine co-operation for you. The experimental stations providing the starting point, the farmer out on the land under the expert guidance of the Canadian Seed Growers' Association giving it a fair chance. This is the principle which has been followed with such marked success in connection with the general scheme of seed and crop improvement, which obtains in Sweden. At Svalôf, the centre of this movement, we find two organizations—the scientific and the commercial: the scientific aiming, as our experimental farms are aiming, to produce better sorts for use on farms: the commercial, which is represented in part in this country by the Canadian Seed Growers' Association, aiming to give that seed the very best chance—to encourage its distribution and multiplication in the most advantageous manner. This, I believe, is a type of co-operation which must prevail in Canada if she is to uphold the high reputation in crop raising which she enjoys at the present time. We already have a number of Seager Wheelers throughout the country, although their work has not flashed up quite so brilliantly. Our aim shall be, if properly supported, to seek to discover more men of this type.

THE CANADIAN SEED GROWERS' ASSOCIATION.

After this general review of the facts and circumstances leading up to the initiation of an organized effort to promote an increased interest in the matter of good seed, let us next consider the organization and system of our Association—the machinery by which the principles of high class seed production are sought to be applied in practice.

ORGANIZATION.

The organization consists of a President, three Vice-Presidents, an Executive Council of five and a Board of Directors of twenty. The Directorate is elected from the different provinces in Canada, thus making work national in scope and far-reaching in influence. The personnel of the Directorate is worthy of note. In the first place, each Province is represented by its Deputy Minister of Agriculture. This makes for unity of action and uniformity of method. The scientific or technical side of the work is represented on the Board by the leaders at our different experimental stations. We also obtain from officers of your own Federal Department of Agriculture, invaluable advice regarding the various questions which come up for solution. These officers, for technical reasons, are not allowed to occupy positions on the Board.

MEMBERSHIP.

The membership consists of honorary and active members. The active members are chiefly farmers who desire to apply on their farms a simple, systematic method of seed growing and selection under expert direction and advice, so that they may be able to produce from year to year a supply of seed of known origin, purity, and of the highest possible quality either for their own use or for the trade.

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THE WORK OF THE ASSOCIATION AND ITS RELATION TO THAT OF THE GOVERNMENT.

The work of the Association may be said to be an extension of the work of that Department of the Government service known as the Experimental Farm system. The latter institutions conduct work in original research with field crops, test different varieties obtained from different parts of the world and endeavour to evolve, through a process of breeding and selection, superior sorts for use on Canadian farms. They are not, however, in a position to control the multiplication and distribution of these sorts in a large way and to the best advantage among individual farmers. This important work, we believe, can best be done by a separate and independent organization for reasons which will be quite clear to you. Were all seed of new and superior strains distributed direct to growers throughout the country without the exercise of any control whatever over its progeny in succeeding generations, the greater part would quickly lose its identity and eventually be either ruined by lack of proper care in maintaining purity or completely lost. The conservation of all that is good and useful in 'stock seed' together with its judicious multiplication and distribution on an extensive scale and under efficient control, is therefore the main work of the Canadian Seed Growers' Association in so far as it concerns its relation to the work of our Experimental Farms and other such institutions.

The Association also aims to systematize the work of seed-growing so that it may be made so simple and practical that a large number of farmers may become members and producers on their own farms from year to year. In this way is created a basis of supply of pure seed of known origin and quality which in turn is multiplied under the Association's inspection and control and made available for seeding purposes to the large farming public.

FUNDS.

Although this important public service is executed by a voluntary organization outside of the Government, yet on account of the value of such work to the country as a whole, together with the service which it is possible for such an organization to render in preventing the dissipation of improved stocks produced by experts, the necessary funds have in the past been obtained annually from the Dominion Government. Thus far we have required approximately $4,000 per annum to carry on this work, this amount being allowed from the regular appropriation of the Dominion Seed Branch. This money is expended in paying the salary of the Secretary the only officer receiving any remuneration, travelling expenses, special printing and translating of special publications, prizes at District exhibitions of selected seed—we have six district exhibitions in Canada—office supplies and expenses of convening the regular annual meeting. The annual report of the treasurer is given in detail in connection with the regular annual reports of the Association and shown exactly to what purpose this expenditure is devoted.

SYSTEM OF SEED GROWING FOLLOWED BY THE C. S. G. A.

The general system of seed growing followed by members of the Association, and which you will no doubt have already anticipated from what I have said, is briefly as follows:

CHOICE OF VARIETY.

Having decided upon the crop or crops of which it is proposed to produce seed of special quality each year the member is urged to choose with the greatest possible care the variety with which to operate. This is a matter of great importance. In

some cases this choice is not difficult to make. In the case of spring wheat, for instance there are not many varieties from which to choose. In oats there are greater opportunities for making a wrong choice. If the grower is uncertain as to which variety will do best on his farm, he is strongly advised to test two or three of the very best known sorts on duplicate plots for a couple of years. The great importance of this cannot be over-estimated as no grower can afford to work with an inferior or unsuitable sort.

PROCURING OF ELITE STOCK SEED.

Having decided upon the variety the next step is to procure a quantity of so-called 'Elite Stock Seed' of that variety. By the term 'Elite Stock Seed' is meant seed which has been specially selected in accordance with definite rules to which I shall refer later and which is regarded by the Executive of the Association to be worthy of multiplication and distribution. This seed may often be obtained from another member who has been operating for a number of years and who has a supply of such seed on hand or it may sometimes be had from an Experimental Station. Where Stock Seed can be obtained in the beginning the work of the new beginner is very much reduced and greatly simplified, as his future concern consists chiefly in conserving the purity and the good qualities of that seed and in multiplying it under the inspection and direction of the Association. Where this seed is not available, the grower must produce it himself. This may be accomplished by operating each year a special seed plot of the chosen variety and selecting therefrom a sufficient quantity of typical heads, panicles or pods as the case may be to give enough seed—'hand-selected seed'—to sow another plot the following year. After three or four years of careful selection there should ordinarily be produced a stock of seed of sufficient purity and quality to entitle it to be ranked as 'Elite Stock Seed.' This practice ordinarily assumes the presence of more than one strain within the mother variety and implies the desirability of eliminating all but that or those which promise best. This system of selection is known as the system of *mass-selection*, and has been specially devised for the practical farmer who seldom has time to undertake the more complicated and exacting methods.

The 'hand-selected seed' obtained in the above manner is, in the case of cereals and small seeds, threshed by hand and every precaution taken to keep it pure and to use only the best of that seed the following year.

Following the production of 'Elite Stock Seed' the special seed plot must not be abandoned, but must be continued each year as a means first of effecting still further improvements in the case of composite varieties and in such cross-fertilizers as corn, and secondly of maintaining the purity and quality of the sort and thus providing a base of supply of pure seed of high vital energy each year. This plot may be handled and controlled in a manner which is quite impossible with the larger field areas and herein lies its main advantage.

Since different classes of agricultural plants are considered by the Association, the system of handling the seed plot and of selecting seed in the case of each class differs to some extent. In regard to their means of reproduction, four main classes of agricultural plants may be distinguished as follows:(*a*) those in which the seed is normally produced by the self-fertilization of the flower; E. G.—wheat, oats, barley, pease and beans. (*b*) Those in which natural cross-fertilization between individual plants is the common rule E. G. corn, rye and the different grasses. (*c*) Those in which cross-fertilization between different individuals is obligatory E.G. red clover. (*d*) Those which are reproduced in a vegetative way, E. G. the potato. The method by which 'Elite Stock Seed' may be produced in the case of each of these classes is outlined in detail in a special booklet for the use of beginners, and which is available for distribution to those who wish to look further into the matter.

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QUALIFICATION OF ELITE STOCK SEED.

When the grower has obtained a quantity of stock seed his chief concern, as indicated a moment ago, will consist in multiplying this seed so as to maintain its purity and quality. This requires soil which is fertile, in good state of cultivation and free from noxious weed seeds. These conditions are imperative where the grower intends offering a quantity of seed for sale for seeding purposes. This phase of the seed question has been found not the least difficult to control. No matter how careful the grower may be it is only through eternal vigilance that weed growth may be kept in check, and that the high quality and purity which is desired in seed may be maintained. An important precaution which our growers are strongly advised to observe is to limit the number of varieties grown on the farm. The growing of more than one variety of any one kind of crop on the same farm is a practice which the association discourages as much as possible. A practice which the association recommends in connection with the harvesting of cereal grains is to have some one go ahead of the binder and pluck out all impurities which may be found within the width of the swarth. No matter how careful the grower may be, impurities in one form or another are almost bound to come in. This plan of 'rouging' the field, as it is called, obviates the necessity of trampling the crop.

All seed grain for seeding purposes should be allowed to mature thoroughly, experimental evidence going to show, as already indicated, that such seed is much more valuable than seed which is only partially matured. The harvesting of grain at the proper time is, therefore, an important consideration and one in which the association seeks to influence in the desired direction.

REGARDING THE REGISTRATION OF SEED.

Seed which has been grown and handled in accordance with the rules of the association and which has passed the required standards, may be accepted for registration in the records of the association, and may, in due time, be entitled to receive certain public recognition in the shape of certificates of registration. Two classes of certificates are issued. The first is for 'Elite Stock Seed,' and the second is for the product of such seed up to and including the third generation descended therefrom. All seed belonging to the latter category is designated 'registered seed.' The certificate for 'Elite Stock Seed' certifies that the said seed has been produced in accordance with the regulations of the association and indicates in each case, the origin of the seed, and the extent to which it has been selected. The certificate for so-called 'Registered Seed' likewise certificates that the seed has been grown according to regulations and that it has been recorded 'Registered Seed' a certain number of generations descended from 'Elite Stock Seed.'

I have here the standards fixed for 'Registered Seed' which perhaps I may pass over now as these are published in the booklet to which I have referred a moment ago.

THE COMMERCIAL HANDLING OF 'REGISTERED SEED.'

In the commercial handling of 'Regi-tered Seed' the Association exercises the greatest possible care in ensuring genuineness and purity of the seed offered. This is accomplished in the following ways. First, by having the growing crop inspected before harvest, by an expert. Secondly, by requiring the grower who intends offering a quantity of seed for sale, to submit a representative sample of such seed for analysis in the seed laboratory; thirdly, by having the contents of each package or sack offered for sale inspected before shipping by an expert who compares the contents of each sack or package with the official sample previously sent in and tested. Fourthly, by attaching to each package or sack offered for sale, and which

has qualified for registration as Registered Seed, a special tag indicating the identity of the contents of the sack and the number of the registration certificate. This tag also bears the grower's certificate over his signature as well as the signature of the inspector who confirms the information given and checks the genuineness and purity of the seed in each sack. By means of coupons attached to these tags we are able to trace all this seed wherever it may go. Finally by having the above sacks sealed by the inspector with a metallic seal bearing the name of the Association; in this way seed may go through any number of hands, may pass through the hands of seed dealers for that matter, and retain its identity so long as the seal remains intact.

INSPECTION OF SEED.

The work in seed inspection is done chiefly by the district representatives of the Dominion Seed Branch in connection with their regular work. Such work is considered by the Department as providing exceptional opportunities for rendering valuable service in giving individual instruction in the growing and handling of high class seed. It is a work which requires ability, integrity and a high sense of duty since the registration of all seed depends upon actual field inspection as well as upon records of quality as determined by analysis of the finished product in the laboratory. Many of our growers are graduates of agricutural colleges and are therefore men of special training. This fact renders the work of the Seed Branch officers very exacting in that they must be men of outstanding academic training as well as possessed of long experience in the intricacies of crop raising and seed improvement. Such men are not common and the Association is to be congratulated in having the services of men who measure up so closely to the high requirements of this work.

THE SEED CATALOGUE.

All seed which is grown according to the regulations and which has passed the necessary inspection of the association is, if offered for sale, listed in a seed catalogue issued by the association and distributed widely throughout Canada. Copies of this catalogue were sent you this week. This catalogue contains, among other things, a statement of the total quantity offered and the price asked per pound. By this arrangement purchasers are able to locate the fellow with the good seed to the mutual benefit of both. All classes of people who buy seed are coming to recognize the value of seed which has been grown and handled according to the rules of our association and are looking more and more to us for information as to where this seed may be had. Some of our large seed dealers purchase considerable quantities from our members at prices which are mutually satisfactory. It frequently happens that a member prefers to sell his entire stock of seed to a single buyer and accept a lower price rather than to bother retailing in small lots. That is a practice which is not discouraged by the association. On the contrary we welcome any and every agency which either directly or indirectly is influential in bringing seeds of superior quality and purity into more general use throughout the country. We require each year in Canada about 40,000,000 bushels of seed to sow the areas devoted to our ordinary farm crops. It is of the utmost importance both to the individual as well as to the nation that as much of this seed as possible be of a high order.

As we ponder over the possible influences of work such as I have outlined, scattered as it is over all parts of our land, the whole matter opens up on one, revealing avenues of progress which at first were scarcely suspected. We recall with satisfaction the pride taken by our members in their work; the added knowledge and appreciation of the virtues and peculiarities of the strains they are working with. All this tends to abate an all too frequent tendency among farmers to periodically

change varieties and even the seed of those varieties, and induces them to concentrate their best efforts on what they have. The mere practising of a definite system in regard to one thing has also a wholesome and helpful influence upon the general farm life of a member, and is bound sooner or later to expand and spread so as to affect other phases of his farming operations as well as those of the community generally.

The added interest given to farm life through the acquisition of increased knowledge of fundamentals and through the special facilities provided for their exploitation must constitute an important factor in stemming the tide from the country to the city. It will therefore be readily seen I think that the association may justly be regarded as not only occupying an important place in the general scheme of crop improvement in Canada, but as constituting an influential and patent factor in the agricultural life of this country. I thank you gentlemen for your attention.

The CHAIRMAN.—Are there any questions now that the members would like to ask Mr. Newman?

By Mr. Robb:

Q. When you were talking of wheats, I understood you to say that in the west it would not make much difference what variety of wheat was used?

A. I did not wish to imply that. I said that while important, the choice of variety, in the case of spring wheat, can be much more easily made than in the case of certain other crops such as oats, in view of the limited number of varieties from which to choose. In the west it is of the utmost importance that a careful choice be made of the variety of wheat to grow in a grain district. One of the great needs of the west has been for an early variety, and that is one of the virtues of this Marquis wheat which you have examined. This wheat, according to Dr. Saunders also stands quite high in quality.

Q. How much earlier is it?

A. It is found to run from four to twelve days earlier than Red Fife depending upon the season. It promises to be one of the best wheats, probably the best wheat, that has ever been produced in Canada.

Q. And has all the good qualities?

A. According to Dr. Saunders the main points in favour of this variety are its earliness in ripening, productiveness, strength of straw, fine rich red clover and baking strength of the flour produced.

By Mr. Sinclair:

Q. Has your department anything to do with the seed that is distributed to the farmers?

A. No.

Q. Who has charge of that?

A. The free distribution of seed is done by the Experimental Farm. Our work is to assist the farmer in making the best use of what he gets.

By Mr. Robb:

Q. You say we require 40 million bushels to sow a crop in Canada. Do you confine yourself to grain?

A. Wheat, oats, barley, pease, corn and potatoes.

Q. Flax?

Q. It does not include flax.

By Mr. Sinclair:

Q. Does seed wheat which is affected by frost make it unsafe to use as seed?

A. We find that wheat may be affected by frost and still germinate well; if badly affected it may still give a fairly high percentage germination, but it is not likely to develop as vigorous or productive a plant as it otherwise would. If the

spring be wet and cold seed which is badly affected by frost may fail to germinate. If it grows at all it may produce a poorly developed plant.

By Mr. MacNutt:

Q. What would be the effect of smuts?

A. For seeding?

Q. Yes.

A. Any agency which tends to reduce the plumpness or to impair the development of the seed is almost bound to effect its value for seeding purposes.

By Mr. Robb:

Q. Do you recommend any treatment for seeds affected by rust?

A. We have found no remedy for rust, but smut can be effectively treated. The loose smut of oats for example, is treated with formaline, about one pint of formaline being required for every forty gallons of water. This solution is sprinkled upon the seed which is placed in a pile on the floor. By shoveling and turning the seed all the kernels become thoroughly soaked. After standing for fourteen or fifteen hours grain should be stirred and allowed to dry thoroughly before sowing. This has been found a very effective preventative against smut. You know pretty well, I presume, the blue-stone treatment for the 'bunt' or stinking smut of wheat.

By Mr. MacNutt:

Q. Is Formaline all right for wheat?

A. It does some good but is not so effective as blue-stone which is the perventative commonly used.

By Mr. Steele:

Q. Would this Marquis Wheat do in Ontario?

A. I think it would, but there is not sufficient evidence yet to show whether it is superior for Ontario conditions to other sorts grown.

By Mr. Sinclair:

Q. Is it available?

A. The supply of really good Marquis is rather limited this year. There seems to be a very great demand for it, but some may still be obtained. We have a large number of growers in the west taking up the growing of Marquis wheat under our supervision. We will endeavor to conserve the identity and all that is good in that wheat, and make it available in large quantities from year to year.

By Mr. Steele:

Q. Suppose a farmer in my riding wishes to procure some of that wheat mentioned in the circular, how would he go about it?

A. We receive many such enquiries by correspondence. The course taken is to send such parties our catalogue in which full directions are given. They are advised to communicate direct with the growers and to place their orders with them, the association simply acting as a medium of communication. People apply directly to us for this information and we make every effort to supply that information.

By An Hon. Member:

Q. Have you a French edition of that catalogue?

A. Yes.

By Mr. Steele:

Q. It it distributed widely among the farmers?

A. Yes, the secretaries of agricultural societies and other similar institutions receive copies. Notice is also given through the press. We have catalogues this year

about half a million pounds of 'Registered Seed,' which will be handled in the manner I have indicated. We have also listed about the same quantity of seed which is not yet entitled to Registration but which is in the process of making. When these different lots accompanied as they are by explanatory tags go out all over the country, I think we are likely to interest a considerable number of farmers in this work. We have on the back of the tag the following 'Notice to Purchasers':—

> 'Purchasers of this seed who wish to take up the growing of 'Registered Seed' on their farms, or who desire special information regarding the production of high class seed, should communicate with the Secretary of the Canadian Seed-Growers' Association, Canadian Building, Ottawa. In all cases the number of the Certificate issued for the seed purchased (see opposite side) should be specified as it may be possible to use this seed to advantage as foundation stock.'

The men who get this seed retain the tags which accompany it as a means of protection against any dispute as to the identity of the seed they have purchased. Our system enables us to trace the different lots.

By the Hon. Mr. Burrell:

Q. Have you any information as to the acreage sown to this improved wheat or as to the results in earlier ripening before maturing?

A. We have no definite results or information. We find in general that the men who have been providing suitable conditions for this seed have been vastly more successful in obtaining seed which is perfectly matured before frost, and which is better developed and more suitable for seeding purposes as well as for commerce.

By Mr. Thornton:

Q. Do you know the yield of this wheat?

A. According to Mr. Wheeler's own estimate it yielded 80⅔ bushels, but of course that is on the basis of a small plot. It would hardly be safe to say what the actual yield would be for a large area, but it would be remarkably large.

Q. And this is the regular crop come to maturing this year?

A. Yes, this is this year's crop. Mr. Wheeler has done remarkable work in the growing of seed. I discovered him five or six years ago. He had been writing very intelligent letters to us, and when in the west I visited him. It would be hard to estimate the influence of a man like Wheeler in his community.

Q. It ought to be a great object lesson to other farmers?

A. Yes, especially in view of the fact that it is not the work of a Government institution in any sense; it is simply that of a man applying up-to-date practical methods on his own farm.

By Mr. Robb:

Q. You would not give all the credit to the seed itself; Mr. Wheeler would have his soil well prepared?

A. Yes, indeed.

Q. That would be one of the great advantages of an object lesson like that?

A. That would be one of the great advantages; these men provide the conditions which are necessary in order that seed may do the best it is capable of doing.

By the Hon. Mr. Burrell:

Q. What is Mr. Wheeler's profession, training and record?

A. He is an Englishman.

Q. Has he had a long training on the farm?

A. No, not very long. He started I think about twelve or fifteen years ago, badly in debt.

Q. Did he know anything of farming?

A. Not very much I believe.
Q. Where did he come from?
A. From the Isle of Wight.
Q. Had he done any farming there?
A. Not that I know of.
Q. It is an interesting object lesson indeed?

By Mr. Thornton:

Q. Is that the original of the letter he sent?
A. Yes.
Q. It is very significant that he says,—'Before that time I had been groping in the dark, trying to do my best in my own way, but the short time you spent with me was as light after darkness.'
A. Yes.
Q. You say the same thing?
A. Yes, that is one very striking feature in all our work. We find a great many men who, if they had just a little assistance, would do very excellent work.

This is Preston, (displaying sample of grain) a sort with which Mr. Wheeler has done excellent work. This sort is a cross between Red Fife and Early Ladoga made by Dr. Saunders and which has given very good results. It is earlier than Red Fife but it is not liked by the millers as a rule, on account of the colour of the flour, a difficulty that Marquis seems to have overcome. Marquis is also a bald wheat not having these undesirable awns, and is very much preferred on that account.

By Mr. Thornton:

Q. Was the crossing which produced Marquis done here?
A. Yes.

By Mr. MacNutt:

Q. Is this sort liable to go down in the straw?
A. No, Marquis is very fair in that respect. Mr. Wheeler is also growing barley and oats.
Q. What varieties?
A. Ligowo oats and No. 21 barley. The oat sort was produced in France about fifty years ago. It is a very good sort of oats, one of our best in fact.
Q. It was originated fifty years ago, you say?
A. Yes and has not shown any material change since. This sort has been operated with at Svalöf, Sweden for a number of years. Efforts were made to produce an awnless variety of Ligowo oats by selecting only awnless individuals. It was found however that the individual instances of awnless types were the result purely of environment, and the next year they returned to the awned type. We brought out a pure stock of this variety from Sweden last spring and had it grown under contract for selling in small quantities to people who are growing Ligowo and want to start with a pure stock as members of our association.
Q. Is the Banner a good variety?
A. Yes, it is one of the best varieties and one which seems to thrive well over a surprising range of conditions. Ligowo, if grown on rich or rather moist soil, will perhaps do quite as well but on lighter soil it does not do quite so well.

By Mr. Thoburn:

Q. Suppose I want a bushel or two bushels of this pure Marquis wheat, what guarantee have I that I am getting what I pay for?
A. According to our system all seed offered is inspected in the field and passed upon by our experts who take very careful notes regarding purity, genuineness, vigor, colour, freedom from weeds and diseases, &c. The acreage and probable yield are also

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noted. All this information is sent to our office, and later the grower reports the number of bushels he has to sell. This statement is compared with that sent in by the inspector. The grower is also required to send in a representative sample of what he is offering. This is carefully inspected, analyzed, and tested for vitality. Finally the grower is asked to sack his seed and to prepare for the inspector who returns to the grower's farm, taking with him a small portion of this official sample. This he compares with the contents of each sack in order to verify the genuineness of the latter. All seed offered is very carefully examined for weed seeds and other impurities, high standards being fixed by the association for the registration of seed. As a last duty the inspector attaches a tag to each sack and puts on a seal. The seed is then shipped to the purchaser. By this arrangement an almost absolute guarantee is given. We have taken the best out of the system followed in Sweden and have developed a system which I think will work quite satisfactorily.

We have done some very interesting work in corn. This (producing an ear of corn) is a type of corn called *Reid's Yellow Dent* which was obtained in Iowa six or seven years ago and which has been grown in Western Ontario to some considerable extent since that time, especially in Essex County. While very productive in some places I believe there are other sorts which are rather better for most districts. Wisconsin No. 7, for instance, as well as certain other sorts are very promising just now and are being worked on.

By Mr. Elliot:

Q. Will that (Ried's) mature in central Ontario?

A. No, not with certainty outside Essex County. It does fairly well for silo purposes however, further north.

Q. What is the yield in Essex County?

A. Fully 100 bushels and even more sometimes of shelled corn.

Q. Which do you consider the better varieties for silo purposes?

A. For what part?

Q. For Ontario?

A. It will depend of course a great deal where you are situated.

Q. I am from Middlesex County?

A. A type of corn which does remarkably well in Middlesex is what is known as 'White Cap Yellow Dent. This is a dent corn and one of the varieties of corn from which you will get a large amount of feeding value per acre. Of course there are many other good sorts. We have Barley, Early Leaming and other early dents which give very fair results.

Q. Would it mature in Middlesex County?

A. I scarcely think so, it is a late corn and requires a longer season to mature perfectly.

Q. Does not the southern corn give better results for stock?

A. Corn from the Southern States do you mean?

Q. Yes.

A. Southern corn is likely to be too late to reach a sufficiently advanced stage of maturity to make good ensilage. It gives a large production of fodder but which is of rather poor quality for silo purposes. We are trying to discourage in this country as far as possible the purchasing of seed corn from the United States. We believe Canadian grown seed is likely to to be better suited for our conditions.

Q. What corn would you recommend us to use in Ontario for silage purposes?

A. In eastern Ontario if the soil is light early maturing Dent varieties do fairly well. Some of our large growers however prefer to use flint varieties.

Q. Is that the corn which is generally used in eastern Ontario?

A. Yes. A sort which is very promising for use as ensilage in the later districts is this Wisconsin No. 7. Mr. Grisdale has obtained a quantity of pure stock of that

variety from one of our Western members and will conduct field trials with it in certain centres. In this way he hopes to obtain valuable information.

Q. Some of the corn growers in Middlesex are arguing that there is a greater percentage of sugar in the southern corn than in some of the other varieties, do you consider that they are right in that contention or do you prefer the other varieties for stock?

A. I can recall no experimental evidence in support of the contention that southern grown seed will give a superior crop for feeding purposes. In my opinion the reverse is the case.

By Mr. Staples:

Q. What variety of winter wheat is grown in the west?

A. The winter wheat area is limited very largely, as you know Mr. Staples, to Southern Alberta and to Northern Manitoba.

Q. They are successful in growing it up around Swan river?

A. Yes, I prepared a report four or five years ago on the growing of winter wheat in that district. Since my visit to Sweden I am very much more hopeful of success in the cultivation of winter wheat in Canada. They have done remarkable work in Sweden in evolving types which survive the severity of the winter and early spring conditions of that country. I believe there is a future for that class of wheat in Manitoba.

Q. It has also been successfully cultivated on the bald prairies. Mr. Bunnell of Culross near Elm Creek has for three years experimented there and he has had three successful crops. I think, if I am right in my figures that the first crop he had, that is three years ago, averaged about 40 bushels to the acre; the following year he had somewhere around 30 to 40 bushels, and last year, I was there while he was threshing, he had 39 bushels to the acre. He is now going into it on a fairly large scale, he has a block of 40 acres.

A. What variety?

Q. The Turkey Red.

A. Does it stand up well with him?

Q. Oh splendidly.

A. That is the weakness with Turkey Red in Ontario, it is very weak in the straw. In that respect it is not nearly so good a variety here as some of the other sorts, such as Imperial Amber.

Q. There is no doubt in my mind if Mr. Bunnell follows that up he will be successful.

The CHAIRMAN.—I am sure the members of this committee have enjoyed the address which Mr. Newman has given us on this important subject. We hardly appreciate sometimes the importance of it, but I may say on behalf of this association that in my district we have had the advantage of having at different times during the last six or seven years some one connected with this Association coming to speak to us through our Farmers' Institutes and Agricultural Societies and Farmers' Clubs, of which there are two or three in the riding. I notice that the farmers in the last five or six years are taking a greater interest in the matter of pure seed, and bulletins are sent out by this association which are of great benefit. The farmers are becoming alive to the importance and helpfulness of such an Association. I do not know that there is any further business and if there are no further questions the committee will adjourn.

Committee adjourned.

Certified correct:

L. H. NEWMAN.

THE DOMINION EXPERIMENTAL FARM SYSTEM

HOUSE OF COMMONS,

ROOM No. 34,

WEDNESDAY, February 14, 1912.

The Select Standing Committee on Agriculture and Colonization met at 11 o'clock a.m., the Chairman, Mr. Sexsmith, presiding.

The CHAIRMAN.—Mr. J. H. Grisdale, Director of Experimental Farms, has kindly consented to address the committee on the working of the Experimental Farms throughout the Dominion. I will now call upon him to address us.

Mr. GRISDALE.—Mr. Chairman and gentlemen,—When asked to give evidence as Director of Experimental Farms before the Select Committee on Agriculture and Colonization, I considered that perhaps I could choose no better subject at this time than that of the present status of the Dominion Experimental Farms and Stations. It is the first occasion upon which I have had the honour of addressing you as Director of these farms, and as there is a new Government and a new Parliament, I shall attempt to give a survey of the Experimental Farm system as it now is, and to indicate, as far as I am at present able, the lines of work planned for the future. Many of these are but continuations of work upon foundations already laid; others are in the nature of expansions of former researches, and, in some cases, it is planned to enter into fields of investigation and experiment which have as yet been practically untouched in Canada.

THE CENTRAL EXPERIMENTAL FARM, OTTAWA.

The Central Farm at Ottawa being the key-stone of the structure, it will help to a better understanding of the whole if I commence with a brief account of the farm here.

As its name implies, in addition to carrying on those varietal, cultural, feeding and breeding experiments common to all or certain of the farms, it serves as the head-quarters of the Director and the technical and administrative staff under his control. From here the work of the branch farms are guided and supervised, although the Superintendents of the latter are to a certain extent allowed a free-hand to work out the problems peculiar to their districts.

The scientific study of agricultural questions is carried on here by officers having special charge of the various branches of such work.

The preparation of reports and bulletins dealing with the results of the investigation of agricultural problems is naturally another of the important features of the work at the Central Farm, and the volume of correspondence of the Director, and the officers in charge of the divisions is very heavy. In addition the Central Farm officers, as well as the superintendents of the branch farms, give out a great deal of information each year to the farming community by addressing farmers' meetings and lecturing at short courses in connection with some of our agricultural colleges and societies.

The Central Experimental Farm comprises 466 acres, and cost $62,689.71. The present Director is myself. I was appointed Agriculturist in 1899, Dominion Agriculturist in 1910, and Director on April 1, 1911. The staff includes Dominion Agriculturist, at present vacant; Dominion Horticulturist, W. T. Macoun, appointed 1898, Dominion Cerealist, C. E. Saunders, appointed 1902; Dominion Chemist, F. T. Shutt, appointed 1887; Dominion Botanist, H. T. Gussow, appointed 1909; Dominion Entomologist, C. G. Hewitt, appointed 1909; Poultry Manager, A. G. Gilbert, appointed 1888; Assistant Poultry Manager, V. Fortier, appointed 1904; Farm Foreman, D. D. Gray, appointed 1906.

The Dominion Agriculturist position made vacant by my promotion to the position of Director, has been, on my recommendation, divided into two positions. We find that the work of supervision and direction of the whole of agriculture on our experimental farms in all parts of Canada is too great for one man, and with the consent of the Hon. Mr. Burrell, a Dominion Animal Husbandman and a Dominion Field Husbandman will be appointed, so that in future there will be, as it were, two Agriculturists. In addition, Mr. Burrell has consented to the appointment of an official of the same status to take up the study of forage plants, to be known as Dominion Agrostologist.

THE SOIL.

The soil of the Experimental Farm at Ottawa includes every grade from heavy clay to light sandy loam, much the larger part being either a dark sandy loam of good quality or a friable clay loam. About 140 acres was virgin soil when the farm was acquired by the Dominion Government. Of the total area, 65 acres is devoted to the Arboretum, 35 to lawns and buildings and 21 to forest belts, the remainder being allotted to the experimental work of the different divisions, with the exception of 200 acres which are devoted to what is called the '200-acre farm' which is under the supervision of the Dominion Agriculturist and is conducted on a money-making basis. It is of every imaginable description as any one who has driven over it in the summer knows.

LIVE STOCK.

In live stock we have horses with which we have been carrying on breeding experiments, and studying the best methods of feeding them for different kinds of work. I need not enter into an account of the experiments. I have submitted the results to you on previous occasions, and they have appeared in bulletin form as well.

As regards cattle, we have been carrying on experiments with such different breeds as Ayrshire, Canadian, Guernsey, Jersey and Holsteins, and have gained very valuable information, much of which has appeared from time to time in the reports and in bulletin form. We have now in the press a bulletin on Dairying Cattle which we think will be of very great value indeed to the farmers in this country.

In the matter of beef cattle, we have been studying the raising of these from birth to the block, studying the different methods of feeding them at different stages, the comparative value of the breeds, and we have now in our pens four of the best breeds, seven or eight in each lot. We have tried every known feed, both the roughage and concentrated for beef feeding purposes and we have been feeding steers of various ages.

Swine are kept in large numbers, including Yorkshires, Berkshires and Tamworths.

We have small flocks of sheep on the farm, as well as the other lines of livestock mentioned, Leicesters and Shropshires being the breeds selected. We took these as being representative of modern requirements, because of course we found it impos-

sible to keep representatives of all the many breeds of sheep. They are handled as a commercial flock.

We are also carrying on more or less experimental feeding work with lambs. We find that lambs bought in the fall, even at highest market prices and fed during the winter with the common feeds that are found on our Canadian farms, and sold at different times in the Spring, have left us a good margin. For instance, last year on 30 lambs we cleared up a dollar and a half on each lamb. The year before we did just about as well, and the prospects are that we are going to do as well this year with our lambs if prices keep up.

THE DAIRY.

We have on the farm a small dairy building where we manufacture our milk and send it out in the form of butter and various small cheese—such as cheddar cheese, cream cheese and Coulommier cheese. These cheese as well as the butter, we sell in the local market here, many of them being to private customers. Our aim in this dairy is to show the average farmer, who is remote from the creamery or cheese factory, what can be done on the farm. Just to give you an idea of the possibilities of the profit where opportunities are right, we make in connection with our cheese about $3 a hundred for our milk—that is for the cream and Coulommier cheese. With the cheddar cheese, made in small sizes and handled to the best advantage, we make a little over $2 a hundred. I do not say that every farmer can do that, but it shows the possibilities for a man who had a fair sized herd of cows and was not conveniently situated for shipping this milk. I may say that I am trying to introduce this kind of work at various of our branch farms to demonstrate to the farmers all over Canada what can be done.

CROP PRODUCTION.

With respect to the cost of crop production, crop rotation, methods of soil cultivation, forage crops, varieties, methods and agricultural implements. In my evidence before you last year I took this question up very fully and I need not enter into the subject again now. I might say, however, that our work last year continued along these lines has given further proof of the importance of thorough cultivation and of the advisability of using as large machines as the farmer can handle on his farm. True, the conditions are not always suitable for the introduction of the largest machines, but I am confident that on the average farm in Canada we could use a much larger machine than is at present the case. We introduced, as you will possibly remember, rotation work at the Experimental Farm here some twelve or thirteen years ago. This work is being continued, varied to a certain extent, but every one of our rotations has indicated the importance of this line of experiment, showing us that the average farmer could make very much better use of his land than is at present the case. If I remember aright, in my evidence before you last year I stated that the average farmer spent about $10 an acre in the cultivation of his land, and according to the Census and Statistics Bulletin he received $15.50, making a clear profit of between five and six dollars. Now, at the Experimental Farm our cultural operations cost us $11.77, and our crop return was $45.47 per acre, as contrasted with $10 and $16.50 for the average farmer. We have therefore a net profit of $33.70 as compared with six or seven dollars on the average farm in Eastern Canada. I just mention this to show that we are continuing this line of work and to remind you of the possibilities of the average farmer if he would pay as close attention to details —to the lowering of the cost and to the thorough cultivation of the soil—as he might, and as I regret to say he does not, in too many cases.

HORTICULTURE.

At the Experimental Farm also we are studying methods of growing different classes of trees; we are testing out varieties of apples and we are producing new varieties. Our Horticulturist, Mr. Macoun, by cross breeding has during the last few years produced some thousands of varieties, and we are testing them out. As soon as we find a good one we propagate it and give it a more thorough test. If after first fruiting the apple tree proves to be of small value it is relegated to the brush pile and nothing more is done with it. In that way, Mr. Macoun was telling me the other day, we have produced some hundred odd varieties which show great possibilities and amongst the number there are about twenty which are superior to anything commonly grown in this eastern part of Canada.

Then we are carrying on experiments with small fruits. Further, every vegetable that has any reputation or that we think is possible of improvement and should be experimented with, we have taken up and are working with it. We also have ornamental plants that are being experimented with.

FORESTRY.

We have, as already stated, a large area devoted to forestry, and this work is now becoming very interesting. All of you gentlemen that are interested in re-forestation could not spend half an hour to better advantage than by taking a trip round our forest belts some time next spring.

CEREAL BREEDING.

In the cereal division we have much work going on particularly in the breeding of wheat. Remarkable progress has been made here, and we have produced varieties of wheat which are much earlier, of better quality, and produce larger crops than anything that has been introduced here from other countries. For instance, there is the famous Marquis wheat, about which you have all undoubtedly read recently—the wheat that won the $1,000 prize in New York. The seed for that very sample came from the Experimental Farm here.

The grain distribution is also under the immediate charge of Dr. Saunders of the Cereal Division.

FARM CHEMISTRY.

In the Chemical Division we are carrying on valuable work with feeds, fertilizers and soils, in order to advise the farmer as to the best feed to use and the best fertilizer to apply to his soil, and what is required by each field judging by this chemical analysis. We have also carried on there the chemistry of the health of animals branch.

BOTANY.

The division of botany has for chief Mr. H. Gussow. Mr. Gussow has to do with the identification of the flora of Canada, he is in charge of the aboretum, which occupies an area of about 65 acres, and looks into the plant diseases as well as does some work with forage crops.

ENTOMOLOGY.

The chief officer of the division of entomology is Dr. C. G. Hewitt. As you know insect pests are found in every part of the world and just at present we have several problems on our hands in this connection. This division has a great deal of work ahead of it and we ask the public to co-operate with the Government in this matter.

APPENDIX No. 3

Dr. Hewitt will probably have an opportunity of appearing before you and discussing some of the pests which are at the present moment so threatening in their aspect as to make us fear for the future of certain parts of our country.

POULTRY.

In the poultry division we have Mr. Gilbert, who has been before you many times, and who continues to work hard.

BUILDINGS AND EQUIPMENT.

Our farm buildings, with the exception possibly of the sheep building, are equal, if not superior, to anything else of the kind in Canada. We try to make our buildings models up to which the average farmer can come—not necessarily the same size, not necessarily quite so extensive and so expensive in some respects—but built along such lines as to indicate to him the best thing to do. For instance we have a piggery that is undoubtedly the best in Canada. It is perfectly dry in the coldest weather, and it is as free from all smells as any piggery could possibly be. We have a cow stable which ranks amongst the best. Our horse stable is a model. We have plans of these buildings and the demand for these plans has become so great that with the permission of the minister we are getting out a bulletin dealing with plans and specifications for farm buildings, which will soon be at the disposal of the public, probably in three or four months.

PRINCE EDWARD ISLAND FARM, CHARLOTTETOWN.

So much for the Central Experimental Farm. We have farms in each of the provinces. Beginning with the easternmost province, that of Prince Edward Island, we have one at Charlottetown which is located on the southeast side of the corporation limits of that city, along the east side of the Prince Edward Island Railway. This property was acquired from private owners by the Provincial Government of Prince Edward Island in 1909 and leased to the Dominion Government to be used as an Experimental Station. The total area is 65·8 acres, and it was made up of seven small holdings. One of these, known as the east part of the Johnson property, although conveyed to the Government, is held by a private owner until the expiration of his lease in 1917. The area now being used as an experimental station is 59 acres. Towards the purchase of this property the Dominion Government contributed $3,292.50.

By Mr. Armstrong:

Q. I would like to ask whether it is possible for us to make some inquiries with reference to the remarks that have been already made?

A. Certainly, as far as I am concerned.

Q. I know you have a lot of material there and there will not be any opportunity later if you have to cover the whole of that material in the course of an hour.

A. The remainder of my address will not occupy so long a period as that. The first part of my subject necessarily had to be general and comprehensive.

Q. I would like to ask a number of questions and one is what means are being used at the present time for the distribution of material such as you have given us this morning?

A. Do you mean the details of what we are doing?

Q. Yes. You have given us a lot of valuable data with reference to the Experimental Farm and what you are doing there. Now, what knowledge does the average farmer possess of your operations there.

A. Well, to begin with, we publish bulletins dealing with the different lines of work carried on.

Q. How are these bulletins distributed?

A. They are distributed to any one who asks, or to any one that we know is interested in the matter. We have an extensive mailing list embracing some seventy odd thousand names. We cannot possibly send the bulletins out to every one, because in the first place we do not know the names and addresses of every one, and in the next place many persons are not interested in the subject dealt with. If a member of Parliament, for instance, sends in a list of a hundred or two hundred names of farmers that he thinks would be interested in these bulletins, we put them on the mailing list and then their names are retained.

By Mr. Proulx:

Q. Names are sent to you by Secretaries of Farmers Institutes in addition?

A. Yes. To every man whose name we get whether he is a farmer or not, we send these bulletins.

By Mr. Armstrong:

Q. Is there no means of advertising such matters as you have given us this morning in some of the weekly papers, for instance the agricultural press?

A. We do not advertise.

Q. I mean giving notice that these bulletins are at the disposal of any one who wishes to apply for them.

A. We do not advertise but every one knows that the farms exist and that these bulletins are published. We advertise the distribution of grain and many applications for bulletins come in that way. We do everything we can to distribute as great a number of bulletins as possible. I may say that the edition of the different bulletins and reports are increasing annually. A few years ago we issued about 45,000. Now we are asking for 100,000 copies of each edition, so you see the distribution is increasing very rapidly.

SEED GRAIN DISTRIBUTION.

By Mr. Thoburn:

Q. I would like to ask you about the distribution of grain. As I understand, the plan is now that a farmer can only get one sample.

A. That has been the plan for many years.

Q. I brought that to the notice of the Ex-Minister of Agriculture in order to ascertain if it would not be possible for a farmer to get more than one sample. I will give you the reason of that: you start with a sample of wheat this year, then next year you get a sample of oats, the following year you get a sample of peas, the fourth year you get a sample of barley and the year following a sample of potatoes. So you see it takes five years before you can get a complete sample. I do not know whether you could give five samples, but I certainly would give more than you do now—two or three at least—and in that way a man would not have to wait so long in order to obtain a complete sample.

A. I might say that that very question is being considered by the Honourable the Minister, and the staff of the Experimental Farm, at the present moment. When the distribution was being arranged for this year, we discussed it quite fully and decided that it would be inadvisable to make a change this year, but we propose putting it into operation at a later date.

Q. Why would it not be advisable this year?

A. If you will just wait a moment I will tell you. We are putting into operation certain restrictions, that is we are asking the man who applies for a sample, to tell us something about his present crop. If he asks us for a sample of wheat we ask him: 'What kind of wheat are you growing, what has been your success in the past, and

what kind of soil have you? We know the climatic conditions so we don't have to ask him about them. But we ask him to tell us, if he can, what crop was in the field the year before. We find many farmers ask for a sample without paying any attention to those conditions which either make or break that sample, whereas we find that if the farmer is to get the best result he must sow his crop under the best conditions and he must show more interest in the matter. To those farmers who apply and do not give the desired information we write asking them to supply the deficiency, and then we can select the best variety. We have this year for distribution such good varieties as Red Fife and Marquis. We say to each applicant that we will send him a sample suitable for his district. Of course we tell him that if he does not make us acquainted with the conditions on his farm we cannot pick out the best sample for him. We thought that if we consented to the distribution of more than one sample to each applicant this year it would simply complicate matters, and so it was decided to try to make this improvement before we experimented with others.

By Mr. Armstrong:

Q. You have given the Committee to understand that you have been making a profit of $33 per acre on the field crop.

A. No, I did not.

Q. What statement did you make then?

A. I said that taking the prices of the Census and Statistics Bulletin that would be the advantage which our farm would hold as compared with the average farmer. We do not estimate our crops at the same prices as the census officer does. I do not know where it got its figures, but the ones I quoted were those given in the Census Bulletin.

Q. Yes, but judging by the remarks you made this morning the average farmer on reading the report would be given to understand you could make $33 profit whereas he could only make $5.

A. I did not say that he could only make a profit of $5. What I said was that according to the prices he received as set forth in the Census and Statistics Bulletin he only received a profit of between five and six dollars.

Q. I do not think you made that statement sufficiently explicit. The average farmer would be beginning to wonder how you are going to accomplish this achievement?

A. I have all the data here and I gave full details to the Committee last year. They are to be found in the printed report of my address, and if you like I will send you a copy, but there is no object, that I can see, in repeating these statements every year.

Q. Just another question. You gave the Committee to understand that the farmers would make $2.50 a hundred for milk.

A. No, I said that we did; I did not say that the average farmer could. Where the farmer's conditions are favourable, that is if he has a market for this kind of thing and manufactures the milk on his farm, he can do it; but I say that the farmer who is near some cheese factory or creamery should not do that unless he has a very large dairy, when he might find it profitable to do it on his own premises.

Q. Unless he is a very large operator, and can find it profitable to do it?

A. The average farmer will find it advantageous to send to the cheese factory or creamery.

Q. But the average man would like to know how you can make $2.45, while he is only able to make 80 cents or 90 cents.

By Mr. Paul:

Q. If you realize that $2 a hundred for your milk, at what price do you sell the cheese and where is your market,

A. It is purely local.

Q. What is the average price?

A. 18 to 19 cents.

Q. And you realize about $2 a hundred, and that is without the cost of manufacture. The average farmer is getting 80 and 90 cents a hundred and he gets the information that you can realize $2 a hundred?

A. I think I made it clear that that is what our cheese brought in the market. It is a very special thing.

Q. You are not taking in the price of manufacture, either?

A. No. These are very small cheeses which a man buys in the block, and they are kept a long time. I probably should not have mentioned these prices, it probably was a mistake. We have under consideration a plan which will bring many of these facts right home to the farmer at his own door. I am not at liberty to speak of it, but will ask you just to let this matter rest for the moment, and I hope that when I come before you again I shall be able to give you an outline of what we are trying to do. We are discussing it in the Department, and we hope that something will be done along this line. I appreciate what you say, indeed these are the very arguments that I am using to advance the very line of work I am trying to get under way. I am very glad to see that the members are of the same opinion, that we must get right to the farmer on his farm. It is a good thing to send a man a bulletin, but it is better to show him right on his farm what can be done and what should be done, and that is what we are going to try to do.

BRANCH FARM CHARLOTTETOWN, P.E.I.

The Superintendent of the farm in Prince Edward Island is Mr. J. A. Clarke who has been in charge since the establishment of the station in 1909. We are carrying on a little work with live stock, we have a few cattle and a number of sheep. Sheep-feeding is, I consider, one of the necessary lines of work all over Canada and we are trying to introduce it on as many farms as we can. We are feeding thirty sheep in different ways there, and Mr. Clarke informs me that they are doing very well. I do not need to go into the details, however.

We are carrying on a lot of work in rotations, and cultural methods. Rotation work is exceedingly important all over Canada, and we have now rotations on every farm in order to show the farmers the importance of following crops with certain others in the right place and in the right crop succession so as to get the best results. We are doing this on every farm, and I have no doubt it will prove effective if followed by the farmers in building up their farms.

We are growing all the forage crops in which the average farmer should be interested. We are testing the different varieties of grain and so on, and we are carrying on work in horticulture, growing apples, cherries and plums. We are studying methods of orchard treatment, suitable for conditions as they exist in that part of the country, we are working with vegetables and small bush fruits, and carrying on general experimental work done there.

The buildings that have recently been put up include a barn, an implement shed, and a house. The farm is now in good shape to carry on the work that an experimental station should carry on, with this exception, that in my opinion it is rather small. Though we bought 65 acres, we are at present occupying only 59 as part of the land will not come into our possession for five or six years yet, and I think the farm could be advantageously enlarged.

BRANCH FARM NAPPAN, N. S.

The next farm, going west, is the farm at Nappan, N.S. It is in the County of Cumberland, and it includes 300 acres of which 45 acres are made up of dyke lands, 120 of cultivated up land and 135 acres of wooded and rough up land. The farm was purchased in 1888, and the Superintendent is Mr. R. Robertson. It is situated on

the line of the I.C.R., in fact the I.C.R. traverses it, and the soil consists chiefly of clay loam ranging from heavy to light with some parts gravelly. There we are carrying on work with live stock. We have horses which are being fed experimentally, beef cattle, about 50 head at present, and we have a herd of graded cows which we are breeding up in two ways. We are taking a herd of cows such as we can buy from the average farmer and we are breeding them up along Ayrshire and Holstein lines to show what can be done. This work has been advocated for many years, but I do not know of a single instance where a really valuable experiment has been conducted of accurate records being kept throughout, and we hope to get some information that will be of value not only to the Maritime Province farmer, but to every dairy farmer in Canada.

We have sheep, a few Shropshires and Leicesters, and we have also swine and poultry. On this as on other farms we are studying methods of soil cultivation and crop production, and we have three or four rotations.

In horticulture we have done a good deal. This farm is not situated in the best horticultural district of the Maritime Provinces, but it is astonishing what we have been able to do in the production of fruit here. In one orchard surrounded by forest, it has been found possible to produce almost as good fruit as in the Annapolis Valley. We also grow a few apples, pears and plums, and have all the small bush fruits under experiment, and likewise with vegetables and other horticultural products.

We have a good stable which we are improving this year, and we are making a cow byre.

BRANCH FARM KENTVILLE, N.S.

We have recently purchased a farm in the Annapolis Valley at Kentville. This farm consists of 240 acres. It was purchased by the province and handed over to the Dominion Government last year, and has since then been under a foreman who has been at work clearing up the land, which was practically all under forest or scrub. We have been fortunate in securing a superintendent for the farm, Professor J. W. Crow of the Ontario Agricultural College who has already made a name for himself in connection with agriculture in this province. We think that he will be able to do much to advance the interests of the fruit growing industry in that part of the country. I cannot say much about this farm as it is merely in the way of being cleared up at present. There are no buildings of any value excepting a house, which may be repaired.

STE. ANNE DE LA POCATIÈRE, QUE.

Coming on to Quebec we have a farm at Ste. Anne de la Pocatière. This farm is situated on the I.C.R. and close to the Eastern Agricultural College of that Province. The soil is a heavy clay for the most part, the land ascending as it goes south and coming to a hill which it climbs and where the soil is of a lighter character. This great variety of soil will enable us to carry on experimental work of many kinds. On it also we have not yet begun operations for the reason that we have no superintendent. It is proposed to begin building operations and to get a superintendent at once.

BRANCH FARM, CAP ROUGE, QUE.

The next farm we have in Quebec is at Cap Rouge, a small village some ten miles west of Quebec city. This farm is very beautifully situated on the St. Lawrence and is reached by Grand Trunk Pacific and the C.N.R., and a macadamized road from Quebec. It consists of 326 acres, of which about 160 are under cultivation. The property was bought from Mr. Gustave A. Langelier who had been running it as a farm of his own for some ten or twelve years, and had made a name for

himself as a farmer all over the Province of Quebec and part of Ontario. When we bought the farm we were looking around for a superintendent and Mr. Langelier applied. We did not know any better man for the position and accepted him as superintendent. He has proved a very satisfactory man indeed. The soil on this farm is a clay loam, with rather a stiff sub-soil in many places. It is, however, practically all susceptible of cultivation and is being rapidly brought under the plough. That is we have already 160 acres and we expect soon to have 300 acres of arable land on that farm. We are carrying on there much live stock work of all kinds, horse breeding, dairy cattle breeding, we have already a number of Yorkshire swine and we are introducing sheep. Dairy cattle being the largest industry in the Province of Quebec we do not anticipate doing much with beef cattle, but possibly something in feeding lines a little later. We have also poultry and we will carry on there experiments in field agriculture. We will study methods of soil cultivation, crop rotation, forage crop production, drainage and clearing land. It is essential that in the eastern part of the province crop rotation should receive more attention from the average farmer, and we are doing everything we can do to put ourselves in a position to say that such and such a rotation is the one best adapted for the locality from which the man applies for information. We have as many as nine rotations at different places and we have sixteen at the Experimental Farm here, in order to decide the most suitable rotation for a given district.

In horticulture we are also carrying on extensive experiments at Cap Rouge. We have already about 200 trees out and have a lot more ready to set out next spring. We are devoting quite a large area of this farm to horticulture since this has been somewhat neglected, especially in the eastern part of the province of Quebec, and we hope to be in a position to say what a man should not do if he is anticipating planting trees.

The same with small fruits and with vegetables, and we are also at work on ornamental grounds. This farm lends itself particularly well to work with ornamental plants and trees as there is quite a steep hillside running down to the St. Lawrence where the work can be carried on.

When this farm was bought there were a large number of buildings which were suitable for experimental purpose, so it is not so necessary to add very largely to the establishment there.

BRANDON EXPERIMENTAL FARM.

The next farm—skipping the Experimental Farm, which we have already taken up—is Brandon. The farm at Brandon is located chiefly on section 27 of township 10, range 19 west of the first meridian. It consists of about 740 acres of lowland and upland. The lowland is a heavy sedimentary soil. The upland is a lighter loam which has not proved very fertile. However, we are carrying on rotation work on this soil and find that with proper cultivation and following the right rotation we can get good results from it.

CROP ROTATION.

By Mr. Schaffner:

Q. What rotation are you following?

A. In Brandon?

Q. Yes.

A. We have nine different rotations there. We are following a four year rotation. We have two different four year rotations. Then we have one five year rotation, two six year rotations, an eight year rotation and an eleven year rotation. The eleven year rotation is so long because alfalfa enters into it and we leave the alfalfa down for five or six years. We find alfalfa does very satisfactorily indeed at Brandon.

Q. Are you growing on the high land or on the low land?

A. On the low land. Are you familiar with the farm there?

Q. Fairly familiar.

A. It is on the south side of the road leading across from 18th street, as you turn towards the farm buildings.

By Mr. Staples:

Q. Are you carrying on experiments with stock?

A. I was just coming to that, sir. We have live stock there of various classes. We have a dual purpose Shorthorn herd, a flock of sheep, a herd of swine—Yorkshires, Tamworths and Berkshires—and we are also working with poultry, and doing some experimental work with horses. We have one unique line of live stock work with which we are not experimenting; that is to say we have Yaks there. They are simply on exhibition. They were sent there by some man who was interested in this line of work some years ago but so far they have not proved very satisfactory. At Brandon we have now about 160 sheep that we are feeding and breeding.

SOIL CULTIVATION WORK.

We have done a great deal in soil cultivation work on this farm, as well as on the other farms. A year ago I had a reunion of the superintendents of the farms on the western prairies. We met at Regina and went fully into the question of methods of soil cultivation on all the seven Western farms. We started a series of experiments to determine what was the best method of treating soil in all these lines. I cannot take the time to outline the work we are doing along each line, but it occupies quite a large area on each farm and I think it will in a few years give us very valuable data that will enable us to do our work better and will enable the average farmer to do better work on his farm. We are studying methods of work on prairie breaking, depth of ploughing and summer fallow treatment. We are also studying various methods of handling the field after the crop has been harvested and of seeding with grass and clover. Probably one of the most important things on the prairies is getting some of the land down to grass and clover. If we are to prevent our soils from blowing on those prairies and to retain the humus in the ground, we must grow more clovers and grasses, so we are carrying on very extensive experiments along that line. Then as to methods of breaking the soil. When you get a field down to hay or clover, you must also study the best way of getting it back to grain, because the grain crop must enter and constitute part of the rotation. Then we are studying methods of applying barnyard manure. That, as every one admits, is a very important part of farming. But, on those western farms it can be so used that instead of doing an immense amount of good it will cause an immense amount of harm.

By Mr. Thornton:

Q. How long have you been experimenting with manure?

A. We have been working with manure for years, but this line of experiments, including so many different ways of doing the thing, started last year.

Q. What result have you obtained?

A. I am unable to give any results yet. The best way I think is to apply it on the surface.

Q. Out there?

A. Yes, not to bury it.

By Mr. Staples:

Q. What means are you adopting of disseminating that information amongst the farmers?

A. We have not got this information yet. We have bulletins containing our past records but this work that I am outlining now was started only last year. Only

one year's work was done, and that was on uniform soil, under uniform conditions, so that we have nothing comparative as yet. However, we are keeping very careful records. We have put a man in charge of these plots on each farm, and we know exactly what happens in each case. When you consider that our experiments are carried on at six different farms, under more or less different conditions, we ought to have some valuable information in a few years. Of course, we will get that information out as soon as we can because the farmer out there is very much in need of it. I became very conscious of that when two years ago I made a trip through the west. I spent the whole summer of 1910 on the western farms studying conditions, and came to the conclusion that if we were going to do anything effective we must get right down to the foundation of the thing and study it all over those provinces. I am responsible for the inception of these varied lines of work, the cultural investigation work as we call it, including some 3,000 different plots where we are studying these different methods of doing things and the rotation work, including 25 different rotations—some of them on all the farms, and some of them on only a few farms—being influenced to some extent by soil and climatic conditions, because while conditions are on the whole fairly similar throughout the prairies, there are as you known certain particular districts where the precipitation is greater than in other districts, or put it the other way if you like. Not only are we studying the application of barnyard manure and green manure, and the turning down of certain crops so as to retain the humus and prevent the soil from blowing, but we are studying seed-bed preparation. This is a very important matter indeed, and one in which many of our farmers in the west who are unaccustomed to conditions which exist make mistakes which are responsible for the freezing of the grain and for mighty small crops in many cases, not to mention other evils. Then we are studying the question of soil packers. The soil packer had made its appearance in the west and is there to stay. It is such an important factor in the agriculture of the west that we have devoted some hundreds of plots to the study of methods of use under different conditions.

By Mr. Schaffner:

Q. Are you only just beginning experiments with seed beds?

A. Not beginning, but we are carrying on these uniform experiments. We have been experimenting in seed bed preparation for many years but we have never adopted any uniformity of plan on our system of experimental farms.

Q. Do you not think it is high time it should be started?

A. That is why I did start it. After spending the summer there in 1910 and finding that I was unable to get any data that was conclusive on these subjects, I said, 'The first thing we must do there is to set going a system of experimental work which shall be comprehensive and exhaustive regarding all these different problems,' and that is why this work is under way.

Q. We want it practical too.

A. It is of a practical character, as you will find if you will visit Brandon or any other station in the west next year.

Q. Can you give us any comparative records for the last ten years, of the number of farmers that are visiting these various Experimental Farms, compared with a few years ago? Is the number of visitors increasing; are the farmers taking advantage of these farms?

A. No, sir, I do not think they are.

Q. Have you any record as to that?

A. No.

Q. Don't you think such a record would be a very useful one?

A. I believe it would. I might say in that connection—but I had not thought of mentioning it—that last year I persuaded the Hon. Mr. Fisher to permit us to devote a small amount of money to the encouraging of excursions to our farms. We did not

do anything in that connection at Brandon. The Farm at Brandon is unfortunately situated. It is about two and a half miles from the station, thus rather inaccessible; it is quite a transportation problem for the visiting farmer to get from the station to the farm. But we did do something at Indian Head and the effect was very satisfactory. That is one of the matters we will have to deal with in future, the encouragement of excursions to our farms. Last spring I persuaded the then Minister of Agriculture, Mr. Fisher, to permit us to build an auditorium at the Experimental Farm here. When Mr. Burrell came into office he was good enough to confirm Mr. Fisher's permission, so we are proceeding with the auditorium where we can hold live stock meetings, where we can receive excursionists and if necessary make provision for their entertainment of one kind and another. This building will accommodate seven or eight hundred people. I do not know that we should do the same thing at each of our farms but we have made a commencement. The auditorium is not completed yet, but will soon be, and we hope by its means to do a great deal of useful work next summer. We are hoping to continue the work of arranging for excursions to the other farms. In my opinion we should do everything we can to get the general public to visit these farms and this is the line of procedure we are adopting at present, towards that end.

By Mr. Armstrong:

Q. What progress are you making in dry farming in the west?

A. That is a very large question. I do not believe I can cover it in the comparatively short time at my disposal.

Q. You are not making any material progress, are you?

A. We are studying it at our Experimental Farm at Lethbridge, to which I shall refer in a short time if you will permit me to postpone the question.

Now to complete the branch of the subject with which I am dealing, we are carrying on experiments in depth of seeding, commercial fertilizer and under draining. These are minor matters but we are doing more or less work.

Mr. S. CHAFFNER.—They are exceedingly important matters, they are the whole thing.

Mr. GRISDALE.—Commercial fertilizing and under-draining are not matters of much importance, but I am interested in getting some light upon the influence of under-draining upon these dry soils.

Now to continue with Brandon, I may say that this work is carried on at all the branch farms on the plains, so I need not repeat it. We are testing a variety of cereals, we are growing wheat, and we are producing seed for distribution, we are carrying on forestry work at Brandon, and in horticulture we are doing a good deal. We have planted thousands of trees there, some on the high lands and some on the low lands. Those on the low lands we find did not do very well, but on the uplands we got along fairly well, and last year some of the trees gave very satisfactory fruit. I would not like to go into that very fully as it is a branch of Mr. Macoun's work upon which he will be in a position to address you. We have also plums, bush fruits, vegetables, and all sorts of things that have to do with horticulture.

We have as part of our equipment there a traction engine. It is the first western Farm to take on a traction engine. We have another at Lethbridge. It has enabled us to do work a great deal more cheaply than by horse power. Of course there are certain difficulties that we need not discuss. That is a matter which the public will take up as opportunities offer and engines improve.

By Mr. Staples:

Q. What is the make of the engine you are operating?

A. We have an International.

Q. How many horsepower?

A. 20. We have a 40 horsepower here in Ottawa and the same at Indian Head.

INDIAN HEAD, SASK.

The Indian Head Farm comprises section 19, township 18, range 12, west of 2nd meridian and lies a mile and a half from the town of Indian Head. It was bought from the Bell Farm, and the first superintendent was Mr. Angus MacKay, who still occupies that position. Mr. MacKay has, as you all know, made a great name for himself in the west; only the other day at Saskatoon his portrait was unveiled and he was the recipient of many warm expressions of appreciation. Mr. MacKay is undoubtedly one of the most valuable men we have in our service. He is unfortunately getting a little older and speaks of retiring, but we hope to retain his services for some time to come.

We are carrying on live stock work there, with cattle, sheep (Shropshires) and swine, and we have the horses necessary to work the farm. We have also a traction engine, the work of which has been satisfactory and we have been able to do the ploughing at about half the cost of doing it by horsepower.

By Mr. Thornton:

Q. Is it a gasolene engine?

A. Gasolene.

Q. Do you use it for seeding?

A. No, just for ploughing. We are carrying on the same lines of rotation, cultural, varietal and horticultural work as on the other farms in the west.

ROSTHERN, SASK.

The next farm is that of Rosthern, about 45 miles north of Saskatoon. It comprises nearly all of N.W. ¼ sec. 26 tp. 42 rg. 3 west of 3rd mer. The superintendent is Mr. W. A. Munroe. The soil is of a rather light loam, fairly productive when the seasons are favourable. Last year we had very excellent crops of wheat. We have some five different rotations under experiment, but we have as yet no live stock. Provision has been made to erect buildings this year, and when these are completed we shall be able to carry on live stock work at this farm. It has been only two years in operation. The first year was a failure owing to the drought and the condition of the soil, which had been farmed out previous to its being acquired by the Dominion Government. It was infested with weeds, and it took us over a year to get it into such shape that it would be possible to grow a good crop at all. We are gradually destroying the weeds however, and hope to have a decent farm in a few years.

SCOTT, SASK.

The next farm is that at Scott. It comprises N.E. ¼ sec. 17, and part of S.E. ¼ sec. 20, tp. 39, rg. 20 w. of 3rd. mer. The farm buildings were erected a year ago and two years ago this coming summer one hundred acres were broken. Last year we had the first crop, and the results were fairly satisfactory.

By an Hon. Member:

Q. How many acres?

A. 198. The Superintendent is Mr. R. E. Everest.

By Mr. Staples:

Q. Rather small, isn't it?

A. Well, it was the intention of the Minister, I mean Mr. Fisher, to carry on merely cultural work, rotation, varietal tests and experiments with cultivation.

Q. Have you as many buildings or about the same equipment as you would have on a section?

A. We have for some things. We do not have such large buildings, and we have no provision for carrying on live stock work. Whether we carry on live stock work will depend upon the Minister of Agriculture. Personally I think we should do something with live stock but we have a number of farms where we are carrying on extensive experiments with live stock, and it is just a question whether it is advisable to carry them on on these new farms. That remains to be seen. We are doing rotation work, cultural work and also horticultural work on this farm.

LETHBRIDGE ALTA.

The next station is the one at Lethbridge, situated about one mile from the limits of the city of Lethbridge, and on the line of the Crow's Nest Railway. It comprises south ½ sec. 3 and south ½ N.E. quarter sec. 3, tp. 9, rg. 21, w. of 4th. mer. It thus consists of 400 acres and of these 300 are above the irrigation ditch and 100 below,—that is we have 100 acres of irrigable land. We are therefore in a position to carry on work both on irrigated and non-irrigated land. On the irrigated land we have done a lot of work with alfalfa, and studied also crop production and cultural methods. On the non-irrigated area, what might be called the dry-farming part of the land, we are following a number of rotations, and we are going very carefully into cultural methods that are likely to enable us to get good crops even under such adverse conditions as those which obtain there. I may say that last year was a disastrous year there for we had a hail storm. On our dry land at Lethbridge we have been able to produce very large crops of fall wheat. Spring wheat has not done so well. There is no question that following a suitable rotation, some rotation including a summer-fallow, will enable us to grow satisfactory crops even in those rather adverse conditions as to moisture.

We are carrying on work in live stock lines to a limited extent. We have 250 sheep on this farm, divided into five groups, feeding one group on alfalfa, one on alfalfa and grain, one on alfalfa and roots, another on alfalfa and straw, and another on alfalfa and screenings.

By Mr. Thornton:

Q. Do you grow alfalfa successfully?

A. On all our Experimental Farms—we are not in a position to speak of Scott and Rosthern because they are new farms—but on all the other farms in the west alfalfa is a success. At Indian Head, at Brandon, at Lethbridge, at Lacombe, on every one of these farms alfalfa has been grown very successfully.

Q. Is it considered profitable out there?

A. It is by far the most profitable forage crop that can be grown in the west, there can be no question about that, it produces four to five tons to the acre in a good season and in the worst season we have from three to four tons.

Q. That is by how many cuttings?

A. By two cuttings, as a rule, but once in a while we can make three cuttings in a season that is especially favourable. We have two bulletins on alfalfa; we have one for the west and one for the east and the west. Further we send out quantities of soil for the inoculation of fields where it is proposed to grow alfalfa. In a new district alfalfa for a certain time does not seem to do very well, for its successful growth it needs the aid of certain bacteria which enter into the soil and help the plant to grow by forming those nodules on the roots. Now from the experimental farms we send out 200 pounds of soil, sufficient to inoculate an acre, to any one who wants it. All we ask them is to pay the freight, we furnish the sack and the soil and send it to the station for them, leaving them to pay the freight themselves. We are doing a good deal with forage crops on these farms and have collected a lot of valuable information

which it is not necessary for me to give you here, but we have demonstrated to our own satisfaction, and to the satisfaction of any one who has looked into the matter that it is the best, even on the driest of these farms, for producing large quantities of forage, suitable for live stock. With Indian corn we have not been able to make a great success anywhere other than Indian Head and Brandon, but corn does well some years at Lacombe and once in a while at Lethbridge. At Lethbridge we have orchards which are not sufficiently advanced yet to give us any yield, but the trees are living there and are growing. We hope at some time we will be able to produce fruit there.

LACOMBE, ALTA.

The Experimental Station at Lacombe, Alta., is situate at the southeast quarter of Section 24, township 40, range 27, west of the 4th Meridian and is near the town of Lacombe, it is on the line of the Calgary and Edmonton railway, which traverses it, and it is also traversed by the Calgary and Edmonton trail. The soil is good, although there are one or two light spots on the hill, which passes through the centre of it. We have produced 140 bushels of oats to the acre, which indicates its quality. We are not carrying on any live stock work there except that each winter we feed a bunch of steers. The feeding is carried on in the open the cattle being fed on a large table in the centre of the yard, and the yard is never cleaned out during the whole season. Our feeding operations have been very profitable, the first year we made something like $15 or $16 a head, and last year our profits were $29.50, if I remember aright, per head.

By Mr. Thornton:

Q. Is that net?

A. After paying all expenses of the operation, that is labour and feed. The superintendent is Mr. G. H. Hutton, B.S.A.; a good many of you who come from the west know him as he has made quite a name for himself in connection with agriculture in Alberta. We have started to do some horse breeding work and we have some very good Clydesdale mares on the farm.

We have also a small orchard and some small fruits. As usual on all our prairie farms they are not a very great success. Some of our apple trees have lived, and we are hopeful that some varieties will come to something. I might say, as a special point of interest, Mr. Chairman, that I had a letter from the Peace River district the other day from a man who said he had received three trees from us some three or four years ago and that one of them fruited this year and gave him some nice little apples, not very large, but it was quite a cheerful thing to look at them in that country, so that the possibilities of apple growing are great when you can grow them in the Peace River district, some hundreds of miles north of Edmonton.

We are carrying on cultural work at Lacombe as at every branch farm on the prairies and we have some five or six different rotations now under way.

EXPERIMENTAL FARM, AGASSIZ, B.C.

Leaving the prairies and coming to British Columbia, the oldest established farm there, and about the only one that is really established in that province is at Agassiz, about 70 miles east of Vancouver, in the Fraser valley. This farm up to the present has been given over almost entirely to horticulture, but our experiments indicate that it is not the most suitable part of the province for fruit growing. We have therefore given up horticultural work almost entirely on that farm and are taking certain farms in other parts of the province for that purpose. We are converting the farm there into a live stock farm. We sent out last fall a couple of carloads of cattle and we had a model dairy barn built on cheap lines, and yet sufficiently substantial for

all our requirements, with a good cement floor and perfectly sanitary in every respect, with lots of light and air. We hope to carry on a successful home dairy. This is one point where we are putting in a small dairy and doing the work ourselves, because there are no factories there and we find ourselves compelled to either ship to the city or make on the farm, so we are doing the latter. The farm is very large, there are 1,400 acres in it, but of that 1,400 acres about 1,100 acres are mountain land, so that there are only about 300 acres that can be brought under cultivation. About 200 acres is now cleared.

By Mr. Taylor:

Q. What is the size of the dairy herd you have there?

A. We started with 27 milch cows and we have about 35 cattle now, some of them have calves and we are keeping the heifers. We have a stable capable of accommodating forty head of milch cows.

Q. What breed are they?

A. They are Holstein grades.

Q. Where do they come from?

A. They come from near Brockville.

Q. Some people out there speak very disrespectfully of these cows?

A. They are only grades of course.

Q. They say that some of them do not come up to the standard even of the number of teats to each cow.

A. I think they will come up to that standard all right, those people will have to count again. I was talking to the superintendent the other day and he said they were very good cows. Do you think that putting a large herd of pure bred registered stock is the best plan to follow in conducting experimental work of that kind?

Q. I am not in a position to say as to that. But the herd you have on the farm there contrasts very unfavourably with the herd of Holsteins recently placed by the British Columbia Government on their farm. The one herd being the admiration of all visitors; the other herd being spoken of in terms of approach.

A. Well, of course, you can see that the Dominion experimental farms might serve as a model of what the bigger breeders might do if it were so desired, but my idea is that the experimental farms are for the benefit of the average farmer. Now if we were to put as a herd on that farm, a bunch of pure bred cattle, the best that could be bought anywhere and do the same as the big breeders do, continue breeding that line we would not in my opinion, serve the interests of the average farmer, because he could not hope to do what we were doing. We are doing the same line of work that we are carrying on in the east, trying to show the farmer who has not a government at his back, what he can do in taking common cows and grading them up by the use of pure bred bulls and making them a profitable herd. I have heard that some of your western men are dissatisfied with the experiment in question, but I still think, and I fear shall continue to think, that it is the best line of work that can be carried on there.

By Mr. Best:

Q. Do you think these farms are providing the best illustrations to show the farmers how they can grade up their stock?

A. Which farm?

Q. Here in Ottawa. We have a report that some cows in Canada will give 10,000 lbs. of milk in the year, and yet here at the Central Experimental Farm 6,015 lbs. is the best result you can show.

A. That is the average.

Q. But surely after 24 years of experiment you ought to be able to show the best results in the Dominion?

A. Well, we have good records but they are not all good. When you remember that the average cow in the Dominion gives about 3,000 lbs. a year, and our average goes over 6,000 lbs., that is not a bad showing.

Q. There are several herds in Canada that have given very much more than that.

A. They have given more milk.

Q. Yes.

A. What breed were they?

Q. Holsteins, I understand?

A. Well, we have Jerseys, Canadians and Ayrshires, but we did not have Holsteins until this year. Now we must consider a little more than the quantity of milk. You could say that a pump produces so much water, or something like that, without any reflection on the Holsteins, but you must consider the quality of the milk as well as the quantity, and if you take the average yield in butter you will find that these cows have stood away above the average cow in Canada, and we have made no special effort to do anything beyond what the farmers are doing. It would be an easy matter for any government to purchase $10,000 cows, or $10,000 bulls and work in that way, but I consider that work would be absolutely useless to the average farmer. We want to do what will be of value to the average farmer. We can show the farmer that we can take the average cow and improve it to such an extent as to get good results. Take the Jersey, the Guernsey and the Canadian, and the best records of these breeds are only somewhere around 8,000 pounds—that is when they are mature. We have in our records included all ages, heifers two years old and some under that age. One must use a little judgment in sizing up the situation. It is all very well to say that because a Jersey, or a Guernsey gives 6,000 pounds, therefore she is not nearly as good as the Holstein that gives ten or twelve thousand or twenty-nine thousand—and there are cows in the world that have given 29,000 pounds of milk in the year—but one cannot do that without wilfully overlooking certain well known facts as to the variation in fat content in milk.

Q. If there is any place in Canada where they ought to be able to raise a high standard, it is an institution such as the experimental farm, which has been in existence for twenty-five years and with the government at its back.

A. Are you in a position to show that the Canadians and the Gurnseys are not in the best of their class?

Q. No.

A. Then what do you mean?

Q. I mean to say this: that the farmers in the Dominion of Canada look to the experimental farm here to get the best results. In twenty-five years I have doubled the production of milk on my own farm. Why is it that although this farm has been in existence for twenty-five years, men who are experimenting in other parts of the country with their cows are getting better results?

A. They are not getting better results.

Q. I think if you spent thousands of dollars in buying a thoroughbred bull or a cow, that would not benefit the average farmer much, but you ought to be able to take a cow that is giving a low percentage of milk and butter and at the end of twenty-five years raise the stock to a high standard.

A. How?

Q. By crossing the breed.

A. How?

Q. I will give you an example of how I started.

A. With what breed?

Q. It was a shorthorn milking strain, but it does not make any difference what breed I started with. I tried to breed to the best stock that I could get for milking purposes, and in twenty-five years I doubled the total amount of the milk I was getting. What you ought to be able to demonstrate is that you can from a low type breed a very high type of animal.

APPENDIX No. 3

A. I am very glad to hear these remarks because they support me in what I said a few minutes ago about the lines of work we are carrying on at Nappan and at Agassiz. We have taken common cows and are getting good bulls and trying to build up these herds. Now the gentleman also says that the only way to do that is to start with the common cow and improve it. Of course to do so you must have good bulls, you must make a selection, and that is what we did. But the gentleman made the criticism also that because our cows only average 6,000 pounds, therefore they were no good. He alluded to certain other herds, many of which I have a personal knowledge of because I have visited them. Now as to comparison with these good herds, I venture to say to the honourable gentleman that when it comes to butter producing—that is fat content and that is what counts—our 6,000 pound cows will give just as much as the 10,000 pound cows that the honourable gentleman mentioned.

Q. I do not want to be understood as criticising, but I think that the farmers ought to be shown how much butter these cows produce per year and how much milk.

A. They are. The milk yield, butter fat yield and food consumption are given for every cow.

Q. The farmers ought to be shown how much butter and how much milk is produced on this farm and on the other farms. I repeat that I do not want to be understood as criticising, but we want to have this Dominion Experimental Farm the very best in the country.

A. I have attempted to make clear what we are attempting to do. We now have a herd of Holsteins at the experimental farm. It is not a very large herd yet, but we hope that we will shortly have some large milk records to entertain the man who looks at the quantity only. We have had dairy shorthorns too, and there were two cows in our herd that gave over 11,000 pounds of milk in a year. Any one that knows anything about cattle knows that some breeds give far more milk of very much higher quality than others, and we cannot help that. If a man will take and average up the Jersey, the Canadian, the Ayrshire and the Guernsey and finds that they give only 6,000 pounds of milk a year and pays no attention to the quality of that milk, I cannot help it. I am ready to show that the returns are just as good and better than they are in almost any other herd when it comes to fat. When you take the money producing power of these herds, these little 6,000 pound cows will stand up with the 10,000 pound cows.

By Mr. Sutherland:

Q. Have you conducted experiments to determine the cost of production per hundred pounds of the various breeds?

A. We have not with the Holsteins yet, because for certain reasons we were not allowed to buy Holsteins until last year.

Q. How long have you been conducting these experiments?

A. Ten years.

Q. Still you do not wish to say that Holsteins are therefore only fit for producing a large quantity?

A. No, not at all, but you must not judge only by the quantity.

By Mr. Taylor:

Q. Now, to come back to Agassiz, you recommend that herd shown at the experimental farm as a standard to be followed for farmers in that neighbourhood?

A. Yes, I recommend that line of work. It may be possible to get better grades, but we got the best we could get in this district. Out there the cows sell from $135 to $250, and we get them here for $75 and can get them conveyed out there for less than $100, landed.

Q. Do you think they compare with the herds on the neighbouring farms?

A. If you refer to the pure bred herd in the district, then I say no for we have not as yet put a pure bred cow on the farm out there.

Q. I understand they are put on that farm as a standard for the dairymen to follow, and what I am concerned with is whether we are putting a proper standard on the farm for that locality?

A. I think we are.

By an Hon. Member:

Q. I presume you are simply trying to demonstrate to the farmer what can be done under his conditions?

A. Yes, it would be an easy matter, and I know the minister would have agreed to our sending out a few of the very best pure breds that could have been bought, but do you think the average farmer could stock up with pure breds. We are doing exactly what the average farmer can do and we are trying to show him on that farm, and on the farms in the east and elsewhere, what he can do, and my opinion is that we can show him that lots of money can be made in improving his herd in that way. Some of the most profitable herds that have ever existed in Canada have been bred up in that way. A few years ago at Tillsonburg there was a dispersal sale of 60-odd head of dairy cows with an average record of about 12,000 pounds. That shows what can be done in that line, for they surpassed any pure bred herd that I know of. An important part of experimental farm work is to show the farmer how he can do things, and if we were to put up very expensive farm buildings such as have been erected on a farm which I won't mention, but which the member for New Westminster knows, and add a very expensive equipment and stock, I contend we would not be showing the farmer what is the best line of work for him and consequently the experimental farms would be of no use to him.

By Mr. Sutherland:

Q. You mentioned the Tillsonburg farm. Did you know that the very best cow in the herd gave over 20,000 lbs., about 21,000, she was a grade between Shorthorn and Holstein.

A. That was a remarkable yield. This shows there is a lot of valuable work to be done without going to any tremendous expense. I admit we ought to put just as good bulls at Agassiz or on these other farms as we can get at a reasonable price. We do not want to pay $10,000 when we can get really good bulls at a few hundred dollars, and I think the farmers will appreciate that work once they have got away from the idea that we should put up a show place and realize that we are looking at it as a place to learn something from. Of course I am under the direction of the minister, and if he decides that something else should be done it will be done, but I should certainly advise against any very radical change. I certainly advise that we go along as we are doing, at least for a few years, and try to demonstrate to the average farmer what can be done. I might add that a part of the original plan was the adding of a few pure bred Holstein females to this herd, as soon as things were well under way.

OTHER FARMS IN BRITISH COLUMBIA.

We have two or three other stations in British Columbia, one at Invermere. The land has been cleared and partly ploughed and we propose to build very soon. We bought a couple of months ago another station at Sydney. Last year I visited these different places and looked over these farms. Since Mr. Burrell took office arrangements have been made for taking over the farm of about 155 acres near Sydney. It lies between Victoria and Sydney and is traversed by the railroad, while surveys have been made for an electric road to run through the centre of the property, so that we will have a farm very accessible to the farmers of the southern part of Vancouver Island.

APPENDIX No. 3

By Mr. Thornton:

Q. How far is it from Victoria?

A. About fifteen miles from Victoria and about three miles from Sidney.

Q. Then we have some work being carried on at Salmon Arm. The late superintendent at Agassiz undertook some work for us and he is carrying it on there. We have also some work going on at Kamloops, which is in the centre of a large ranching country. Mr. Calhoun is carrying on the work for us in orcharding and crop-production on a small scale.

Now, if there are no further questions I think I have completed what I wanted to say. I should be very glad indeed to discuss any matters in connection with our experimental farm at greater length either in public or in private, if any member of the Committee desires me to do so. I am only too anxious that our experimental farm system should be thoroughly understood and that every thing may be done that can be done to advance the interests of agriculture. We may not all hold the same opinions as to what is the best way of doing the work. We cannot all do it in the way we would like but I know that you as members of this Committee and I, after thirteen or fourteen years experience of this work, are all deeply interested in it and hope to do a great deal in the future to advance the interests of agriculture in the Dominion.

The CHAIRMAN.—We have all listened I am sure with very great interest to the able and instructive address given by Mr. Grisdale, and I have much pleasure in tendering to him the thanks of this Committee.

Committee adjourned.

Certified correct,

J. H. GRISDALE.

THE DEVELOPMENT OF THE POULTRY INDUSTRY

HOUSE OF COMMONS,
ROOM No. 34,
WEDNESDAY, February 28, 1912.

The Select Standing Committee on Agriculture and Colonization met at eleven o'clock a.m., the Chairman, Mr. Sexsmith, presiding.

The CHAIRMAN.—Gentlemen: Professor Gilbert has been kind enough to consent to give us an address on the value of the poultry industry. I believe that industry is one that we have not given a great deal of attention to in the past, and it is perhaps one that is deserving of greater attention at the hands of the farmer, more particularly so when we take into consideration what has been done in other countries. We will now hear Professor Gilbert.

Mr. A. G. GILBERT, Poultry Manager Central Experimental Farm:

Mr. Chairman and Gentlemen of the Committee, I have very great pleasure in appearing before you this morning and bringing to your notice certain features of poultry development, calculated to show the rapidly growing value of the poultry branch of farm work to the farmers themselves, poultry keepers in general, and to the country at large. It is a branch of agriculture in which your Committee has always taken a very kindly interest, much to my gratification and encouragement. As a pioneer—for really I am such,—in developing the poultry branch of farm work for the past 28 years, I have had with both pen and voice, many difficulties to overcome, prejudice to combat and an indifference that would be positively fatal to all effort but my unbounded faith in the value of the poultry interests of the country, as a source of wealth to the Dominion. I beg briefly to bring to your attention this morning the following points:—

1. The value of the poultry industry.
2. How poultry development is shaping.
3. Is the farmer taking advantage of poultry development as he should?
4. The form of development best calculated to help the farmer.

FIRST then, as to the value of the poultry interests of our country. Until we have more explicit information on this subject we will have to be content with as correct an estimate as we can get, and the information which I give you is such as I obtained from our best sources. And these sources differently estimate the worth of the poultry interests of the country from twenty five to forty five millions of dollars. Last year I quoted the estimate of the President of the Montreal Produce Exchange, and one of the largest wholesale dealers in Eggs and Poultry in Canada, and his figures were forty eight millions of dollars. He ought to be a good authority. I asked Mr. Blue, Chief Census Officer, if he could give me a correct idea of what the value of the poultry products was to the country, and his reply was that it would be some little time before the figures of the census, recently taken in connection with poultry, would be in such a shape as to permit of a correct estimate. I anticipated having an estimate, based on these census figures, to give to your Committee on the present occasion, but I regret that I cannot do so.

SOME TELLING FIGURES.

But I have some figures with me, which I saw in the American Poultry World of March, 1911, giving the estimated worth of some farm and animal products in the United States for the year 1909. These figures are so interesting that I am sure you will permit me to read them. The article is entitled 'The Climb of the American Hen' and is as follows:—

'Corn is still king but the American hen must be acknowledged queen, having risen from the bottom of the ladder in 1900 to next to corn—which is first—in 1909, as the following figures show:—

Sheep	$211,736,000
Swine	339,080,000
Wheat	621,443,000
Milch cows	650,057,000
Poultry	700,000,000
Corn	1,523,968,000

We find that the products of the hen increased from 280 millions of dollars in 1900 to seven hundred millions of dollars in 1908—a period of only eight years. The value of the poultry surpassed that of wheat, milch cows, swine and sheep. The poultry products of the United States doubtless now reach the billion dollar mark and perhaps considerably over.'

INCREASING VALUE OF THE HOME MARKET.

Last year I showed from official figures and to prove the rapidly increasing value of the home market, that in the year 1902 we exported to Great Britain eggs to the value of $1,733,242. In 1909—seven years later—the export of eggs had decreased to $124,315. In 1910, a year later, to $41,766, and last year, 1911, the figures were $24,676 only. At this point I would like to read two or three sentences from my evidence given before this Committee last year as follows:—

The position of the egg and poultry situation in Canada is absolutely unique and in this way: that we have reduced exports; increased home production, and, notwithstanding, increased prices. If you were to go to a business man and say to him:—'We have not only decreased exports but increased production,' I think he would be likely to say, 'You must have a mighty cheap home market.' But instead of that the value of the home market has steadily increased, so that prices, for strictly new laid eggs, and the better quality of poultry were never higher than they have been this winter. All this goes to show the rapidly increasing value of the home market.

As a striking instance of the increasing value of the poultry industry, and, incidentally of the home market, I may mention that the prices of eggs and poultry were never—in the history of the country higher than they were during the past fall and winter months, and that, in the face of increased home production, the average price for eggs having been fifty cents per dozen, and last week they were quoted at the high price of 55 cents per dozen. I speak more particularly of strictly new laid eggs and the better quality of poultry. It is the best quality that we should aim to produce. It requires no great effort to produce the inferior article. It is for a people of the highest intelligence such as we claim to be (and I believe we are) to have our products of the very best quality in order to obtain the highest value for the same. Are we doing so? I speak more particularly of eggs and poultry, for they are a branch of farm work directly along the line of my work, and both of which products most intimately affect our daily food. Take the egg out of our domestic econo-

my and what a void we surely have. And I want them, both the eggs and poultry, to be of the very highest quality.

HOW POULTRY DEVELOPMENT IS SHAPING.

SECOND.—The rapidly increasing prices of both eggs and poultry, in recent years, have doubtless incited many to go into poultry keeping with the praiseworthy object of making money. Many try but few get there. I am often asked the question, 'Why are strictly new laid eggs and the better quality of poultry so high in value.' I answer with the truism, 'Because they are hard to get.' 'Hard to get! Why I thought poultry keeping was dead easy.' I again reply, 'Try for yourself and find out.' A popular conception of poultry keeping is, 'Buy a few hens throw down the grain and pick up the dollar bills.' But such is not the case. On the contrary successful poultry keeping is an exact and exacting science. Exact, because if not enough food is given there is little or no product, if too much, the fowls become too fat and the result is the same. Exacting, because adaptability, keen observation, untiring perseverance and proper appreciation of apparently trifling details are indispensable to success. Is it any wonder then that, as I have remarked, so few succeed of the many who try. In the face of all these exacting conditions, poultry keeping of the better, that is the more profitable sort, is progressing. And how is that development shaping?

WHO SUPPLY THE GREATER NUMBER OF STRICTLY NEW LAID EGGS.

In two ways. By the way of the specialist, and secondly by way of the farmer. Recently I wrote a short article, in the Canadian Poultry Review of Toronto showing the high prices paid for strictly new laid eggs in the Montreal markets, and expressing my surprise that so few farmers took advantage of these high prices. To my astonishment, in reply to that article, I got a large number of letters from different parts of the country. Here is one from Newmarket, another from St. John, one from Hereward, another from Cornwall, one from Orillia, and here is one from a banker, and so on. There is one letter that I would like to read, because it shows how the printed evidence given out by this committee is appreciated.

(Reads):

'IRVINE, ALBERTA, January 24, 1912.

Mr. A. G. Gilbert,
Ottawa.

Dear Sir.—

Yours of 15th to hand. We find the information regarding the one-dozen egg boxes contained in your evidence of last year very useful, and we are very thankful to you for all your information. You advised us to try the western cities for the supply of these boxes, but as the poultry supplies and industries are more advanced in the east, we think it best to purchase our supplies there if we could find a suitable firm as we would need one thousand on the first order. Do you send out samples, or would the firm you recommend send us samples so we could have an idea of what they are like?

That is but a sample of letters from various places throughout the country. The members of the committee may therefore appreciate the value of having the different phases of agricultural work discussed before your committee. The point I wish to impress upon you is that these letters are from what we call specialists, and from these letters we also see the specialist may be a professional man, a clerk, a storekeeper, a mechanic, an individual who makes his living by keeping poultry on a small piece of land, or a farmer who is near to a city market. I am sorry to say that there

are too few of the latter class, but I have reason to believe their number is on the increase. Of that later. The specialist has studied up the subject and has become expert in obtaining eggs in winter. He is right in the city or very near the city limits, and is so able to place the strictly new laid egg in the hands of the consumer, in the city, within a few hours after the eggs are laid. If he had a large number of eggs to dispose of he may sell to a large city dairy, or grocery, both of which have a large number of customers who desire only the strictly new laid eggs, or plump chickens, and who are willing to pay the highest price for the same. The specialist in this case will receive 50, 55 or even 60 cents per dozen for the strictly new laid eggs, for which the customer when the eggs are retailed in the stores pays 60, 65 and even 75 cents per dozen, as they frequently did last winter in Montreal. Sometimes the specialists have their own round of customers and the customers in all the cases mentioned prefer to deal with the specialists, because they know that the eggs they buy are as *represented*, strictly new laid. The specialist builds up his trade by being mighty careful to sell none but strictly new laid eggs and well fed and plump chickens.

STRICTLY NEW LAID EGGS APPRECIATED.

A customer said to me not long ago, 'Yes, I paid 60 cents a dozen right along to a mechanic's wife (not far from the Experimental Farm) for the eggs I received from her during the winter. I did not mind the price, for I knew that the eggs were just laid, but I do hate to pay 50 or 55 cents a dozen in a store for eggs, to find when you cook them that they are stale, and probably half of them not fit for use.' That pretty fairly describes the situation.

Let me relate one or two other instances. The son of a Presbyterian minister who resides not far from this city recently told me that he had received 60 cents a dozen all winter for his eggs. Another specialist who had 30 Barred Plymouth Rock fowls told me that he sold his eggs at not less than 60 cents per dozen. 'I was frequently offered 70 cents per dozen,' he said, 'but I would not charge any one that price because I did not think it would be right.' And what is more, he added, 'the people came for the eggs.' That is one specialist who had a conscience, anyway.

By Mr. Best:

Q. Was he a farmer?

A. I am sorry to say he was not. I do not intend any reflection on the farmer when I say that, far from it. The mechanic's wife also told me that people came for the eggs. You will see from the foregoing that the specialist is a dangerous rival of the farmer. That is the point I want to emphasize. But the farmer ought to have much the best of the situation, for he has his grain, roots, &c., at first cost, while the specialist, unless he is a farmer, has to buy his feed at retail prices. In other words the farmer is in a position to out-rival the specialist, if he ever seriously enters into the field, which at present is almost entirely monopolized by the specialist. I am earnestly looking for that time. But the farmer has a few things to learn meanwhile and I will take up some of them under my next sub-head.

IS THE FARMER TAKING ADVANTAGE OF POULTRY DEVELOPMENT AS HE SHOULD?

That is the important question. I do not like to say it, but I am afraid he is not. I sometimes think that the farmer is too contented with the second-hand price for his eggs, which are too often a second-hand article. It is so much easier to get the second-hand rather than the first class article. The farmers poultry is too frequently on the inferior quality side. However, in the quality of his poultry, I am happy to say there has been a very noticeable improvement although there is room for much more of the better quality than is produced. But to return to the discussion of the strictly new-laid egg. I am happy to say that all farmers do not belong to the indifferent class. I know of several who cater with strictly new-laid eggs to the high priced trade of the cities and receive the highest figures for the

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same. Allow me to give you a case in point. Mr. J. C. Stuart, of Dalmeny, Ontario, some twenty miles from Ottawa, on the Prescott line of the C.P.R., is a live, energetic and clever young Canadian farmer. I received a letter from him sometime ago saying that he could supply a quantity of strictly new-laid eggs if he could only get a purchaser for the same. Meanwhile I had been told that a grocer in the city was anxious to get strictly new-laid eggs for a select class of customers. I put Mr. Stuart in communication with him with the result that Mr. Stuart made arrangements to supply the grocer with eggs, beginning in last November, at 45 cents a dozen.

Towards the beginning of December Mr. Stuart said he should have fifty cents per dozen for his eggs, and the grocer continued to take them. A little while after, however, the grocer said to Mr. Stuart, 'You are charging me a very high price for these eggs.' Mr. Stuart asked him to recollect the quality of the eggs, and assured him in reply that for every bad egg found amongst those supplied by him he would give the grocer a dollar. Mr. Stuart came to me and said, 'Mr. So and So is kicking at the price of the eggs. I said to him, 'Drop him at once, there are too many other people who are only too anxious to get strictly new laid eggs.' So Mr. Stuart shut down, but the grocer came after him and asked him, 'Why do you not send any more eggs to me?' Mr. Stuart replied, 'You kicked about the price, and I do not like you to think that I am charging too high a price for the eggs.' You will remember Mr. Stuart had told the grocer that he would give him a dollar for every egg which he found was not strictly new laid. That was a pretty stiff guarantee. Said Mr. Stuart: 'You pay me the fifty cents a dozen and I will continue to supply you under that arrangement.' The grocer was only too glad to get the eggs again because he was dealing with a man whose goods he could depend on. You will see that Mr. Stuart is a live, energetic and clever young Canadian farmer, as so many of our young Canadian farmers are, I am very happy to say. Recognizing his ability and his worth as a practical man the Ontario government secured him for Farmers' Institute work, in which he has been engaged for some months past. So Mr. Stuart not only does, but tells others how to do. That is a very important point—a practical farmer telling other farmers how to succeed. An important and practical part in Mr. Stuart's instruction to his fellow farmers is to keep no less than 200 hens, so that they can have sufficient eggs to send in twice per week. This at once meets a great difficulty in placing strictly new laid eggs on the market. I was asked by a member of this Agricultural Committee last year,' 'But surely you would not have a farmer run into the city twice per week with only a few eggs each time.' Certainly not, but with 200 hens he would have a goodly few every week, and the same difficulties that Mr. Stuart encountered in getting his eggs to market are only such as any farmer would encounter. Mr. Stuart lives twenty miles away from the Ottawa market, yet he sends his eggs in twice per week. On one occasion a lady told me that her son was coming from New York and she would like to get for him some strictly new laid eggs, and asked me if I could get them for her. I got a case of 12 dozen eggs from Mr. Stuart, and afterwards the lady told me that she never had finer eggs before; indeed she was perfectly delighted with them both as regards size and quality.

Mrs. R. A. Craig, of Osgoode, Ont., a farmer's wife, sells all her strictly new laid eggs to a Montreal dealer at fifty cents per dozen during the winter months. She has 200 hens or over. And poultry she disposes of, both dead and alive, in large quantities. I might mention other cases, but these are sufficient for the present. It shows you the great opportunity which the farmers have if they will only take advantage of it.

BAD PRACTICES ON THE PART OF FARMERS.

But there are several bad practices on the part of the majority of farmers, which seriously mitigate against the quality of their goods. Now, let us briefly note some of these drawbacks:—

First.—Non-appreciation of what a strictly new laid egg means.

Second.—Holding back eggs until he has a sufficient number to make it worth while taking them to market. Meanwhile the eggs stale.

Third.—Keeping his fowls in ill-constructed and unsanitary poultry houses. Very frequently both hens and houses are lice infested or suffer from disease.

A point brought out at the Committee meeting of last year in connection with this third point was the great demand by the hospitals, particularly by the tuberculosis hospitals for strictly new laid eggs, as they are considered a specific in cases of incipient tuberculosis. The virtue in such eggs is for the reason that they are strictly new laid by well and cleanly fed hens. Hence they are highly nutritious. Now, if lice are allowed to first take the nourishment from the blood of the hen, it is not likely that she will lay as nutritious an egg as one laid by a hen entirely lice free. It is too common on the part of farmers to have ill-constructed houses and to allow both houses and hens to become infested with lice. This fact has such an important bearing on the nourishing quality of the egg that it is worth while bringing it to the attention of the Committee. I emphasize this because the evidence given before this Committee goes to the farmers in all parts of the country and they will undoubtedly benefit by paying attention to this point.

Fourth.—Another drawback is the lack of appreciation of variety in the composition of the daily ration. A lack of variety leads to egg eating, eggs being laid with soft shells or no shells at all, and to feather eating, which are two most discouraging vices. Overcrowding of the poultry houses is also an incentive to the vices named.

Fifth.—Another bad practice is in having late hatched chickens. As a result the pullets instead of laying in October or early November, do not do so until late in January or February, when the season of best prices is over.

There is a fact in connection with the select trade that I should like the farmers to more fully appreciate than they do, and it is, that the producer who wins a reputation for supplying the best eggs and the best quality of poultry is not likely to lack customers. On the other hand the producer who sells stale or doubtful eggs is not likely to be certain of a customer. If he takes in a customer once he is not likely to do the same person again. He is not in a position to say, 'My eggs will prove their worth and so stand by me.'

Sixth.—Another point in which the average farmer is frequently remiss is neglect in caring for his chickens at an early age, particularly during the first five or six weeks of their existence. If the wish is to have plump chickens to go into the fattening pen, the chickens must be well cared for from the time of hatching.

SCRAGGY TYPES NOT DESIRABLE.

The keeping of small and scraggy types rather than those which make plump and fleshy market fowls as well as good layers is very objectionable. It is a most important matter for the farmer to consider. As proof of the disastrous effects on the development of poultry of the proper table type, I may state that Mr. Ashton of Morrisburg, Ont., who is extensively engaged in the fattening of poultry for the high quality market, was sent to me at the Experimental Farm, by Mr. Andrew Broder, the Hon. Member for Dundas, to discuss practical poultry development along the lines of suitable table types. Mr. Ashton made the extraordinary statement that his business was seriously curtailed for the reason that he could not get birds of the proper type, to fatten, in quantity enough. I asked him what he proposed as a remedy for this state of affairs. Before I give his proposition allow me to read another letter along the same lines as we have been discussing. The letter is from the agent of a large United States firm, a poultry branch of which is situated in Stratford. The firm is Swift & Co., of Chicago, and I think they kill 10,000 birds a day in the United States. They have come into Canada, and are preparing to do

a large business. Perhaps some gentlemen of the Committee may know of their operations in Canada. The agent writes me as follows:—

STRATFORD, ONT.

DEAR SIR,—On behalf of Swift & Company I have become very much interested in the poultry business in Ontario and would like very much if we could be a means of assisting farmers to produce and better finish a better class of poultry for table use.

Of the 75,000 to 100,000 head which we killed during the past season, a very large proportion of them, especially chickens, were of poor varieties and too thin for marketing.

From personal visits through districts in the United States one cannot fail to be impressed with the superior quality of the poultry itself, both as to breed and feeding and methods of handling. One of the weak features in Ontario is that there is such a large proportion of small thin breeds, such as Leghorns, Game and one or two black breeds.

The writer of the letter is strictly correct. We have too many non-descripts in the barnyard. Then he goes on to say:—

We are also behind in Canada in regard to the establishment of feeding stations, but I have good reason for thinking that there will be great advancements made during the next few years in establishing feeding stations, so that one of the chief reasons for taking up this question with you is the hope of securing the co-operation of your department in encouraging the raising of Barred Rocks and other types of poultry which are better adapted for table use.

We believe that handlers of poultry on the other side, especially in Iowa, Nebraska, Kansas and Illinois have done a good deal to improve the breeds suitable for table use by exchanging good breeds pound for pound or bird for bird with the farmers for the purpose of weeding out these small varieties. We hope to see the large dealers in Ontario adopt the same policy, and from a conversation which I had recently with the principal operators I believe that it will be done. I would suggest that you might be able to do a good deal through the public speakers representing your department on Farmers' Institute deputations and other sources.

I shall be glad to hear from you with any suggestion that you have to make whereby we may be able to be of some service in the direction indicated, and hope that we may have your co-operation in the direction that I have indicated.

Now, here is a gentleman representing a firm which does a large poultry business in the United States and Canada, and he says his business operations are curtailed by the lack of the right types of fowls throughout the country for fattening. The situation is one that I consider worth laying before your committee. I think it worth consideration. It amounts to this, that the two poultry purchasing firms I have mentioned—Mr. Ashton of Morrisburg, Ont., and Messrs. Swift & Co. of Stratford, Ont.,—are actually seeking for a quality of birds that the farmers do not produce. Am I not justified in saying that in these cases the market has actually come to the farmers.

ARE EGGS LARGELY IMPORTED?

By Mr. Schaffner:

Q. Do you know how many eggs and how much poultry is imported into Canada each year?

A. I have not the figures with me but I could send you the information.

Q. A farmer might say, and indeed does say, that if everybody went into the raising of poultry—and you say they should have at least 200 hens to make it profitable—he might say there would not be a market. That is what I would like to know,—if the market can be increased and are we importing to any great extent to-day?

A. I have just read over some figures,—perhaps you were not here at the time —to show the worth of our home market. The export of eggs has declined from over one million dollars in 1902 to something like $26,746 worth last year. And that is, as I have stated, in the face of an increased home production as well as a certain amount of imports. It goes to show the rapidly increasing value of our home market, a home market that our farmers are not taking advantage of to the extent that they should. For after all, the great law of demand and supply regulates the price, and there is not the slightest doubt that the high price of eggs and poultry of superior quality is due to the fact that there is not enough supply. I can give you the imports for last year when we imported $439,000 worth of eggs, and poultry and game to the extent of $68,000 worth, and fowls (domestic breeds) $23,000. Another proof that we do not supply enough for the requirement of our home market. After all it is a reflection on our farmers that they do not supply enough of eggs and poultry and that we have actually to import to satisfy the home demand.

By Mr. Edwards:

Q. Cannot the United States produce poultry and eggs cheaper than we can because of the advantage they have in possessing a mild climate?

A. If they did it might follow that prices would be correspondingly lower.

Q. Don't you think that they have cheaper prices for the reason that they have a milder climate?

A. There are doubtless various climatic conditions in the United States. I cannot speak authoritatively of the results of the climatic conditions of the United States, but allow me to speak of a striking condition in Canada that may go to answer your questions. I had a visit from a British Columbia gentleman the other day, and he said, 'We have a mild climate which is particularly favourable to the raising of poultry.' I replied, 'You ought then to have a large supply of poultry and eggs.' He said, 'So we have.' Now, it is an interesting fact that notwithstanding the mild climate which is certainly favourable to a large output of eggs and poultry I can assure you that the prices in British Columbia are the highest we have in Canada. Eggs were sold in the towns and cities of British Columbia last winter as high as 75 cents and even 95 cents per dozen. I have letters bearing that out. In Ottawa the highest market price was 60 cents a dozen, and at the Experimental Farm we sold at 50 cents. Apparently in the case of British Columbia a genial climate had no effect on the high value of eggs and poultry.

Q. I asked the question because of your remark that the figures regarding the importation of eggs were to a certain extent a reflection on the farmers. I do not agree with you in that. I think it is a reflection on the Government and not on the farmers. It was a reflection on the past Government, and will be a reflection on this Government just so long as they permit the United States to ship eggs in here and to pay a fraction of the duty which they ask us to pay if we want to send eggs over there. In other words, we have been handing over our market to the producer of eggs on the other side of the line, and it is not fair to blame the farmers for not supplying this market?

A. I do not mean to reflect on the individual farmer, for there are exceptions as I have shown, but I do blame the farmers for not catering in sufficient numbers to the high priced markets. We will put it in this way:—It is a reflection on the producers of the country if they do not produce enough, of the quality to merit their obtaining the high prices which, I think, should be an inducement to farmers to go more into egg producing and poultry raising of the better quality than they do. I have not the slightest objection to the Government giving the farmers all the aid they need. I am not in a position nor would I presume to reflect upon the present or any Government. I am inclined to think that the inexorable law of demand fixes the price of the supply. I think the farmers have only to produce what is so much required in quantity sufficient and they will if they so do surely realize the enor-

mous wealth open to them. Again, if they produce enough prices will go down. It is because the supply is not available that prices are high.

By Mr. Thornton:

Q. Just on this point, what is the reason that prices at points within reasonable reach of Ottawa are less than half what they are in Ottawa today?

A. At what point is that the case?

Q. Within three hours' run of Ottawa strictly fresh laid eggs are selling at twenty-six cents a dozen right straight along.

A. At the present time?

Q. Yes, at the present time, I bought them last week.

A. As I have remarked a reason may be that the farmer does not send his eggs into the city market regularly and frequently. As I have shown he holds them until he has sufficient to make it worth while taking them to market. The consequence is that when he does bring them to market the purchaser simply gives him the value of the stale article. I related the following incident to the committee last year. Allow me to repeat it: I was present in a large grocery store in this city recently when a farmer came in from a point about 35 miles distant from Ottawa, the farmer said to the clerk, 'Do you want any eggs?' 'How many eggs have you,' enquired the clerk. 'Twenty-five dozen', said the farmer. Note the next question asked, 'How many hens have you?' When the clerk heard the number of hens the farmer had he at once concluded that before the farmer could save up twenty-five dozen eggs that a good many of them must be mighty stale, and so a price of twenty-five cents a dozen was paid at a time when strictly new laid eggs were selling at 50 cents a dozen. A point I wish to emphasize.

Q. Well, I do not understand how the people of Ottawa have to pay that price, or how they get their supply of eggs, when within three hours' distance there is any quantity of strictly fresh laid eggs today selling at 26 cents a dozen. I bought them myself; there is no question about their being strictly fresh laid, produced by the best and most industrious farmers in this country?

A. Yes, I have not the slightest doubt of the correctness of what you say but I do not think farmers will get a better price for their eggs, until they make an effort to bring their eggs in for sale more promptly than they do.

Q. I tell you what I think, there is something wrong with the way in which the supplies are distributed or else there could not possibly be that difference in the price within such a short distance.

A. Doubtless. There is one thing certain that the hen does not lay a stale egg, but it is too frequently a mighty stale article before the consumer gets it. This happens in too many instances, as you well know. The farmer has the fresh egg, but why does the egg not reach the consumer in the city while yet fresh. The consumer is willing to pay 55 or even up to 60 cents a dozen for the strictly new laid articles? Why the difficulty in his obtaining it?

By Mr. Marshall:

Q. How old has an egg to be before it is stale?

A. Five or six days in the winter. If fertilized, a much shorter time in summer.

FLAVOUR OF THE EGG ANOTHER EXACTING QUALIFICATION.

While on the point I would like to deal with the question of the quality of the egg. People are getting educated in regard to the flavour of eggs as well as of other articles. The good flavour of the egg depends upon how the hen is fed and the way in which she is kept. I repeat that well flavoured eggs can only be obtained from hens that are carefully, well and cleanly fed. Permit me to emphasize this point by relating an incident which has a most important bearing on the subject. A gentleman visitor to my poultry division some time ago remarked 'I am glad you are laying such stress upon the clean feeding of the hen in order to have a good flavour to

the egg. You cannot go too strong on that point.' He said, I was up in a certain district not far from this city one early spring, and I noticed that they had taken the backs off the privies and were allowing the hens access to that highly nauseous but stimulating quality of 'food,' as they choose to call it. The hens, under the influence of such stimulating diet laid well and the eggs I was informed drifted into the city and were sold for whatever price could be obtained for them.' This incident is not a pleasant phase of the question but it has a significant bearing on the quality of the egg. A lady told me the following experience:—'I was asked by a friend who had heard that I wanted strictly fresh eggs to come and see the lovely hens that she had, and that she hoped she would be able to supply me with all the strictly new laid eggs, that I wanted.' This lady who resides in the city is a woman of refinement and culture and has a charming home. She accepted the invitation and in speaking to me afterwards she said. 'I could not describe to you the appalling filthy conditions of poultry house and surrounding nor the filthy way in which those hens were fed, nor the filthy stuff they ate.' I said. 'You need not tell me any more, I can fancy the rest.' She added, 'I could no more eat one of the dozen eggs my friend gave me than I could eat the filth I saw about the place.' I can assure you, gentlemen, that it takes some little trouble to secure the delicious flavour so desirable and so peculiar to a new laid egg.

By Mr. Thornton:

Q. There is no doubt at all about what you say. There is a lady in one of the villages of my constituency who gets, and has for years got never less than fifty cents a dozen all the winter for her eggs which are, of course, always up to quality. She gets stale bread from Toronto at a very cheap rate, and stale bread is the very best of feed, there is no question about it, for producing eggs. The quality of the eggs cannot be surpassed and she is making a great deal of money. She is a retired farmer's wife living in a village, making money hand over fist by feeding her hens that clean way and raising eggs all winter for the Montreal market. As I said before she has not for a good many years got less than fifty cents a dozen for her eggs.

A. Yes, and I think she is in a position to demand the best price for she has the very best article.

Q. I think you do well to lay stress on the fact that the hens should have good food.

A. That is exactly what I am trying to do.

THE SENDING OUT OF INFORMATION.

By Mr. Staples:

Q. I think you had better also have in your report something suggesting how these difficulties should be met, that is in the keeping and feeding of the hens and the construction of the henhouse. That is the kind of information that should go out to the farmer keeping in mind the ability of the average farmer to construct suitable houses.

A. I do that and have done so in my annual reports of the work in the poultry division of the Experimental Farm system. I am delighted to see Mr. Grisdale, our esteemed Director here. It shows an interest in poultry keeping on the part of the Director, I thoroughly appreciate, and I take it as a hopeful augury for the future.

Q. The question is, is the information going out to the farmers?

By an hon. Member:

Q. You don't print a sufficient number of copies of these reports.

A. A member told me that notwithstanding the large number of copies printed of last year's evidence he wanted to get 5,000 more.

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By Mr. Schaffner:

Q. I do not think the annual report is the best meduim. The farmers do not read it. I think we should have a bulletin, or separate sheets with practical information in them?

A. We have been doing something of that kind, but I may state that much more is likely to be done in the future.

By Mr. Best:

Q. In that sheet would you show what type of house is best for the producer?

A. Yes, certainly.

By Mr. Arthurs:

Q. Could you not put in your report the prices that you are getting?

A. Yes, I may say that the figures given by Montreal retail buyers, who pay the highest prices at all seasons are given in my report of last year, 1911. I have several suggestions under my next sub-head.—'The form of poultry development best calculated to help the farmer.'

By Mr. Sutherland:

Q. Have you made any experiments as to the effect on fowls eating worms, locusts, and so on, and the effect on the quality of the eggs?

A. Yes. We can tell the effect of different foods on the flavour of the egg. Doubtless you have experienced the difficulty in getting an egg with good flavour in buffet Pullman cars, hotels, &c. Sometimes it may be noticed that the white of an egg was inclined to be liquid. That probably was an egg from an ill-fed hen.

Q. Would you consider a hen ill-fed that was feeding on worms, locusts and beetles?

A. Not if surroundings were clean. I would not consider an egg well-flavoured that was laid by a hen that had eaten decayed animal or vegetable substances or had been drinking filthy water such as leachings from the barn yard.

SOME DIFFICULTIES.

You can now see some of the difficulties which surround the placing of a first-class article on the market. It means trouble, and again there is the difficulty of getting the farmer to put his eggs in the hands of the consumer while strictly fresh. There are also the difficulties of having the farmer keep a sufficient number of fowls well housed and cleanly fed that they will lay eggs that are well flavoured. I have made it a point to study this phase of poultry keeping for many years.

WINTER HOUSES OF DIFFERENT KINDS.

By Mr. Staples:

Q. What system is working out best, the henhouse that is kept warm, or the one that is kept cold?

A. We have a compromise system that is doing the best. It is in the shape of a house with cotton front on each side of a window which is in the centre and faces south. We have also on trial an entirely open front house called the 'Tolman' house. It has wire only on the front, which faces south. It is really what is called a cold house. We have had an unusually severe winter, but in that respect it was a good one for testing such a house as the latter. Only five per cent of the hens laid in the 'Tolman' house. Now, no house is worth anything that will not permit of a paying percentage of eggs being laid in the winter. Hens may look well, but if they do not lay eggs in a paying quantity what is the good of keeping them? In the cotton front house, seventy-five to eighty per cent of the hens were layers.

Q. You say only five per cent of the hens laid. What kind of house was it?

A. What is called the Tolman house. It has a front that is open. It might be a popular house in certain parts of the country where the climate is genial. I fancy

it would be splendidly adapted for British Columbia weather conditions but I am afraid it is too cold for this North Ontario climate. However it is hardly right to give data obtained from only one winter's experience.

By Mr. Kidd:

Q. The same kind of hens were in both houses?

A. Yes.

By Mr. Thornton:

Q. Do you say that the difference in the production was due to the difference in the kind of house?

A. To a great extent. Of course weather conditions are to be taken into account. I hope to have a better opportunity of going into experimental work of this kind than I have had in the past.

By Mr. Best:

Q. Was the feed furnished to both lots the same?

A. The very same. It would not be proper experimenting if the conditions varied.

Q. It was the difference in the house?

A. I think so, and it is all-important to have different kinds of houses tried.

By Mr. Wright:

Q. The house with a cotton front would be a comparatively cold house. How would that compare with a place kept reasonably warm?

A. We have reason to favor the comparatively cold cotton front house in preference to a partly heated house, but as to the latter we have no exact data. A farmer in New York State who has some 5,000 or 7,000 hens, and who furnishes a New York hotel with strictly new-laid eggs at 60 cents a dozen all the year around, told me when on a visit that he kept the temperature of his poultry house at 60 degrees during the winter and would have no less.

By Mr. Best:

Q. Can you tell us what increase took place in the laying at the farm last year?

A. We have the trap-nest system, a mechanical and sure way of finding out which are the good layers and which the poor. We discard the poor layers, and breed from the good layers. It is a slow but sure process, and we have certainly made progress. We have found out that some hens lay only 20 to 25 eggs while we had one hen which laid none at all. It is all-important that these facts should be found out.

Q. The principal point would be to find out how you can increase the production. Do you keep any account of the increase in production?

A. Certainly. The figures of different years are given in our annual reports. The only way to increase the production of eggs, as I have said, is to find out which are the best egg producers and breed from them.

SUGGESTED LINES OF POULTRY DEVELOPMENT.

I mentioned a short time ago that Mr. Ashton, who is largely interested in poultry at Morrisburg, came to see me, and he made the statement, which has frequently been made to me by others, that he had difficulty in obtaining birds of the proper fattening type (such as Barred or White Plymouth Rocks, White Wyandottes, Rhode Island Reds, White Orpingtons, &c.) in sufficient quantity, and which lack of quantity seriously curtailed his business operations. To obviate this dearth of chickens of the utility types, Mr. Ashton proposed the establishment of stations throughout the country under government auspices and that each of these stations might be furnished with a large incubator to hold from 3,000 to 5,000 eggs, the eggs to be laid only by birds of the utility types, such as I have mentioned, and which are

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good layers as well as of good market type. On the hatching out of the chicks he would sell them at nominal cost, or have them given away to the farmers in the neighbourhood when only one day old. As is doubtless well known to your committee the sale of day old chicks is becoming a large business. He thinks that in this way farmers who did not have them might be induced to take advantage of the opportunity of obtaining desirable types of table poultry, which when properly grown would be sold to the fattening stations or on the market. Anyway, an attempt would be made to have a uniform type of desirable market fowls as well as good layers placed in the hands of the farmers throughout the country. At the same time they should be urged to discard the smaller specimens.

Another plan somewhat similar to the one just outlined and which, perhaps, would be more easily put into operation, is the opening of poultry plants at all the outlying branch farms and stations and to make them distributing centres of stock, eggs, information, &c., &c., to farmers throughout the country surrounding these farms.

By Mr. Thornton:

Q. Let me ask you a question, has not that been tried to a certain extent during the past year?

A. No.

Q. Or something in the way of experiments in different districts, and has it not been found to be a failure?

A. The fattening of chickens, or what is called the crate fattening of chickens by forced feeding was tried some years ago but abandoned.

By Mr. Kidd:

Q. That was by means of cramming machines?

A. Yes, by cramming machines. I do not think the experiment was exactly in the hands of experienced men.

CHICKENS MUST BE OF CORRECT TYPE AND PROPERLY CARED FOR.

You cannot take any kind of chicken and put it into the fattening crate and so make it a desirable type. Not only must the chicken be of correct type, but be carefully fed and attended to from the time it is hatched. This whole question is surrounded with difficulties. The object is not only to have hens that will lay well in winter, when the eggs are high in price, but are also proper types of table poultry. Apparently easy of accomplishment but in reality a matter of no little difficulty.

The establishment of such poultry divisions at the branch experimental farms and stations, as suggested by our Director, Mr. Grisdale, is, I think, along the right lines of poultry development. It is a matter for congratulation that there is a prospect of having work along such practical lines carried out. The farmer cannot fail to receive benefit.

Q. Now, before you leave this question, I understood you to state earlier in your remarks that the production of eggs in the United States was $700,000,000; did that include eggs alone or eggs and poultry?

A. Both; the figures represent the value of the poultry industry to the United States for the year 1909.

By Mr. Wright:

Q. Have you anything in your report to show how much space ought to be devoted to each hen in the house?

A. Yes, there should not be less than six square feet of floor space to each bird.

By Mr. Edwards:

Q. Have you estimated the average cost of producing a dozen eggs where hens are kept under proper conditions and including the price of the feed? What is the

average cost, or in other words what should the farmer or egg producer obtain for his eggs in order to get a fair profit?

A. A farmer should be able to produce a dozen eggs which would sell in the city at 55 cents for 11 cents.

Q. Is that in winter?

A. That is in winter. In the summer the cost should be 6 or 7 or 8 cents a dozen. In the old times it did not cost so much hardly, but with the increased prices of feed the cost is correspondingly greater.

Q. In estimating that cost are you just taking into consideration the keep of the fowl or the money invested in the poultry house?

A. No, that is just the cost of the feed. The value of the hen manure ought to pay for the labour. Not many years ago we sold the hen manure to a tannery at one dollar per barrel, but a chemical now takes its place for tanning purposes, but as a manure it is invaluable. We have always reckoned that it ought to pay for the labour expended in the care of the hen.

By Mr. Best:

Q. Are you giving us the cost per dozen at the farm here or the cost as it is figured out at some other place?

A. I am giving you the estimated cost to the farmers per dozen during the winter season.

Q. That is on the farm here?

A. No, but to the ordinary farmer. On the farm we may have to buy a certain amount of various foods for experiment and we calculated that the cost is 13 cents a dozen, but our eggs are of very high quality. There are none of better flavour or more nutritious in the country.

Q. I understood a year ago that it took a good many dollars to take care of each hen.

A. It was not so. It is to be remembered that we are an experimental department, and if it did cost above the ordinary per hen to find out facts in egg production in order to start the farmers right and prevent them from committing mistakes, it would be carrying out the experimental principal to the full. I think the Committee will agree with me in that. We experiment chiefly for the benefit of the farmer. If you desire me to run a commercial poultry plant you have only to give me the stock in numbers sufficient and the plant, and I will soon make it pay. But as long as we are an experimental station we have to do experimental work, and we have found that some of our failures have been as valuable in their teaching as many of our successes. It is more important to be able to tell, at times, what not to do.

COST OF PRODUCING A GOOD CHICKEN.

By Mr. Marshall:

Q. Are there not a good many now producing poultry for the market to say nothing of eggs?

A. There are.

Q. What can you produce poultry for?

A. That depends entirely on the kind of stock and how they are handled. The farmer has a great opportunity to produce the best types of poultry. He has wide range for his fowls, and ought to be able to feed his fowls much cheaper than we do who have a limited range.

Q. The reason I asked is that we are large packers of poultry—I think we had something like 150 tons last year and we paid 14 or 15 cents a pound. It seems to me there ought to be pretty good money for the producer. We get them dressed with the legs and heads cut off. So when you are speaking of lots of money being in the production of eggs, we find in the section I am living in that there is a lot of money in producing poultry for the market?

A. There is not the slightest doubt that there is good money in both.

Q. What surprises me is that the farmers do not go into this business more. To go into it on a paying basis a man would have to have 400 hens, and Mr. Thornton spoke of a farmer being not more than two or three hours from the market. I fancy that farmer had so few eggs that he would not think it worth while to take them once or twice per week into the market. But if he had a sufficient number of hens he would be in a position to do so.

A. That is why I gave Mr. Stuart's experience. His advice, as a farmer to farmers is to keep no less than 200 hens, so that they could have a sufficient number of eggs to bring to market frequently. It is a matter for the farmers themselves to take into serious consideration.

Q. What surprises me is that the farmers, who are pretty sharp people, do not go into the business more extensively?

A. They are slowly tumbling to that fact. Your statement is a most important one and should stimulate the farmers to both poultry and egg production.

By Mr. Steele:

Q. What is a stale egg? You stated some time ago that an egg was fresh for from five to seven days?

A. In winter, yes.

Q. That, I presume, would necessitate the farmer marketing it within two or three days after it is laid?

A. Just so, that is if he wanted to market a strictly new-laid article. I am afraid too many farmers content themselves with a second-hand article as regards both eggs and poultry.

Q. The egg would have to be in the hands of the consumer within five or seven days?

GERM DEVELOPMENT IN FERTILIZED EGGS.

By the Chairman:

Q. Would that mean that a fertilized egg would have to be in the market by five or seven days?

A. In winter it would not matter so much whether the egg was fertilized or not, but in summer it would make a serious difference. Perhaps you will allow me to put it in my evidence in this way. There is a difference between the winter egg and the summer egg. It is permissible to have a fertilized egg in winter because the germ is not so liable to affect it, but in summer when the egg is fertilized the germ is certainly apt to develop. I do not like to say it, but it is easier to get a partially hatched egg in the summer season than one that is newly laid, with the delicious flavour a new laid egg ought to have.

By Mr. Kidd:

Q. As a rule, poultry get better feed in the winter. They don't get so much tainted feed?

A. Yes. That is strictly correct.

By the Chairman:

Q. For how long is a fertilized egg in the summer considered fresh after it is laid?

A. That would depend altogether on the way the egg was kept. If it were kept in cold storage and germ development retarded, it might keep probably for several weeks. But the desirable flavour would be gone. It is the flavour of the egg we desire.

Q. But under ordinary conditions on the farm, eggs just gathered?

A. I would not like to eat a fertilized egg, if kept in a warm place, 48 hours after it is laid.

Q. Has it not commenced to taint?

A. Yes. The fact is this that fertilization takes place soon after the egg is dropped from the cluster of minute eggs at the ovaries into the oviduct and impregnation takes place soon after, at what point is not exactly known, and as the egg pursues its course through the oviduct it receives layers of white—two layers, I think—and as it further passes on it receives the coating of the shell and then it is laid. It is stated by some authorities that the hatching process actually begins as soon as the egg is fertilized, and as a proof of it is stated that eggs which have been retained in the oviduct, owing to a diseased condition of that organ, have been laid in some cases with the germ well developed. Then again the farmers are apt to leave the fertilized eggs in the nest and hens sit on them. Again after being laid the fertilized eggs are often put in a warm place and they are kept, shall I say, for ten days or two weeks? One thing is very certain and it is that nature does not cease her operations to suit the exigencies of any man. The hatching process is slowly but surely going on, and when that egg is put into the hands of the customer, at the end of two weeks or longer, it is really a partially hatched egg. Here we are met with another of the many difficulties attending this select egg trade. The only remedy is to have germless eggs, for where there is no germ there can be no development.

By Mr. Kidd:

Q. The hatching process may go on but there is no chicken?

A. Exactly so.

By Mr. Best:

Q. Is there any difference in the production if the male is kept away?

A. Not a particle. You will readily see that this select trade in good poultry and strictly new laid eggs is a large question, and with which many exacting conditions are associated. Directly in connection with it all remains the one great fact that there is an enormous source of wealth to the farmers of the country in the development of the poultry business.

NO DANGER OF OVERPRODUCTION.

By Mr. Wright:

Q. Would not the price go down very materially if many of the farmers took the business up?

A. The extraordinary fact, so far, is that the more we produce of the superior quality, the greater the demand is and the higher the prices become. It is astonishing but true that the more of the better quality poultry and eggs we produce the greater the demand becomes.

By Mr. Smith (South Ontario.):

Q. Is not that true about everything?

A. Yes, that is the correct way to put it.

Q. But at the best, these large prices can only be obtained by a few farmers who are in the vicinity of the larger cities. Farmers of the rural parts of the country could not hope to have their eggs in the hands of the consumer within a week?

A. No. But there are many farmers who are in the vicinity of the high price markets of the cities, or near to express offices which reach the city markets within twelve or fifteen hours. As I said to the Committee last year we may divide farmers into three classes. One, those near the cities; two, those near express offices or railway stations; and three, those who are away back. The latter must be content to deal with the middleman, the country store or drive a long distance. However, the

farmers and the specialists I have mentioned represent a large number of experts because they are right on the edge of the city; in close contact with people who do not quibble or cavil at the high prices; they want the strictly new laid eggs and the better quality of poultry for which they are willing to pay the highest price. There are many districts throughout Canada where co-operation would be of great advantage, and co-operation is being carried on in many parts of the country with great success.

Mr. GRISDALE.—One point brought out a little while ago by an honourable member of the Committee in reference to the distribution of our bulletins I would like to make a little clearer. We have a bulletin issued by the poultry division. This bulletin is at the disposal of every man in the country, and we are ready to send to any member of the Committee, ten copies, or if he rquires it 10,000 copies, it does not matter. We respond to all demands for these publications and are glad to be able to send them out.

By an hon. Member:

Q. How can they be sent out? Will the member have to send them, or if a list is sent to you will you have them sent from the farm?

A. Send the list to us if you like and we will send them out. That applies not only to the poultry division but to any of our bulletins.

Mr. GILBERT.—I think the whole poultry business should be taken up more seriously than it has been and some effort made to directly advance the interests of the farmers in that line.

By Mr. Sutherland:

Q. Have you conducted experiments with a view of determining the cost of raising poultry for the market?

A. Yes. We have been rather limited in our operations so far, but I have reason to hope for greater scope and freedom of action.

Q. If a man were raising chickens and putting them on the market would that pay him?

A. Certainly, but in different neighbourhoods the cost might be a little different according to price of feed. I should think that 45 or 50 cents ought to be cost enough to put a fowl of between 5 and 6 pounds weight on the market. In this connection I wish to emphasize the point that you cannot make a scraggy chicken a good one by putting him in the fattening crate. The fattening firms do not want a scraggy specimen. The farmer must look after his chickens from the time of hatching in order to have them in good condition when put into the crate. First, the chicken should be of proper type and then it should be well fed and cared for, particularly during the first five or six weeks of its existence.

Q. According to your calculation it will cost from 10 to 12 cents a pound to raise a chicken to four or five pounds weight?

A. Yes, to four or five pounds, perhaps a little more.

Q. That does not include any losses that you may have among the young chickens, so many of which do not come to maturity?

A. Fortunately we do not lose many well hatched chickens after they get on their legs.

MONEY IN RAISING CHICKENS.

Q. In that case, referring to the question raised by Mr. Marshall, it would not leave a very large profit for the farmer if they cost him 12 cents and he gave them to Mr. Marshall for 14 cents a pound?

A. Mr. Marshall has said that there is good money to the farmer in raising poultry and he is largely in the business of buying and fattening chickens. I can see

a paying opportunity to the farmers in developing this poultry branch of their farm work if they choose to take advantage of it.

Q. That would leave a profit of about 10 cents a chicken?

A. Yes, and I dare say that if that chicken was of proper type and good condition and came into the hands of a man who was accustomed to furnishing a select class of customers with a select article, it would bring a larger margin of profit than that mentioned. Mr. R. H. Grant, of Hazeldean, a skilful farmer, well known to the honourable member for Carleton, Ont., received 25 cents a pound for all the poultry he had on exhibition at the Eastern Ontario Poultry and Fat Stock Show last January, and why? Because he was expert in the caring for and fattening of Barred Rock chickens. And more farmers could do the same, I am sure, if they so desired.

By Mr. Marshall.

Q. The average weight of a chicken is about three pounds?

A. Yes, but perhaps that is due to the fact that the chickens of the country are too much of the nondescript character.

Q. There is good money in raising chickens.

A. Certainly, and I am very glad to hear you say so. I think you will agree with me when I say that the great object is to have the farmers of the country adopt a proper type and then to take proper care of the chickens when hatched. A chicken that is allowed to 'pick up its own living' will not make a desirable market specimen.

SOME OTHER METHODS OF DEVELOPMENT.

In connection with what I have said as to co-operation being a likely aid to poultry development in assisting farmers to market their eggs and poultry quickly and with little trouble, I may say that the formation of the Poultry Producers' Association of Canada, with its laudable object of establishing egg circles for the gathering and quick sale of new laid eggs and the better quality of poultry with the proper grading of same, should be a great incentive to poultry keeping among farmers in the different parts of the country. In the language of the constitution, the object of the association and its branches or circles, 'is to encourage a co-operative spirit among poultry producers; to bring producers and consumers closer together; to encourage the adoption of the best breeds and types of utility poultry; to encourage the small producers to form local branches or circles, for mutual assistance and co-operation in selling; to aid in establishing a uniform and recognized standard of dressed poultry and eggs; to keep the producers in touch with those buyers who put a premium on quality; and to advance and dignify the poultry industry.' But the Poultry Producers' Association is cramped for the want of funds, and all the members are not in a position to pay their own expenses to attend a meeting at a central point. I think an association, with such laudable intentions, deserves practical recognition at the hands of the government. Already it has done much to help on poultry development.

Another method practised in some parts of the country might be practicable, viz.:—That of taking eggs to the creamery or the butter factory. The farmers bring in their eggs when they bring in their milk. The farmer in this case need not mind whether he brings in a small quantity of eggs or not, for he has to come with his milk or cream anyway. I have not had opportunity to inquire into this method, but I am told it was or is in successful operation in connection with the Morrisburg factory.

FACTORS IN THE PRODUCTION OF THE BETTER QUALITY OF EGGS AND POULTRY.

The question is frequently asked by correspondents and others, 'How may new-laid eggs and the better quality of poultry be produced and sold to the best advantage?'

APPENDIX No. 3

Experience of many years has shown that the observance of the following rules will likely lead to a satisfactory solution of this question, namely:—

NEW-LAID EGGS IN SUMMER.

A.—Strictly new-laid eggs for summer use should come from carefully and well fed hens.

B.—To have eggs of the finest flavour, the hens which lay them should not have access to decaying animal or vegetable matter.

C.—The eggs should be non-fertilized, especially in the summer season.

D.—The nests in which the eggs are laid should be scrupulously clean.

E. The eggs should be collected frequently and placed in a well-aired cellar or cupboard.

F.—The eggs should reach the consumer as soon as possible after being laid. The limit should not exceed a week. Better if it is only four days.

G.—For a choice retail trade, the eggs should be clean, of large and even size, and packed in neat boxes to hold one dozen each. If sold in larger quantities they should be carefully packed in clean crates. The object is to have the eggs present an inviting appearance. Leading purveyors say that eggs so put up are most readily sold.

WINTER EGGS OF THE BEST QUALITY.

A.—Will be laid by hens which are fed on a variety of food, are free from vermin and have a well-ventilated and clean poultry house to lodge in.

B.—Eggs should be collected before they are frozen. An egg frozen and thawed out loses its flavour.

C.—They should be sold to private customers, city dealer or placed on the market within ten days of being laid.

D.—After being collected, they should be placed in a well-aired and sweet-smelling storing place.

TO SELL TO THE BEST ADVANTAGE.

A.—Select and send the choicest goods to a reliable dealer in the best paying market, which is usually a city one. (Express charges for eggs are two cents per dozen for short distances. A return charge of five cents per empty crate is made.)

B.—Some city dealers pay more for hens' eggs than for pullets', for the reason that the former are larger.

C.—The practice on the part of many farmers of holding eggs until they have a sufficient number to make it 'worth while' taking them to market, should be abandoned. It usually results in the eggs becoming stale and they are apt to receive a low valuation when sold.

D.—Farmers in the neighbourhood of cities have exceptional opportunities of reaching the best paying customers and obtaining the highest value for strictly new-laid eggs.

THE SUPERIOR QUALITY OF POULTRY.

The better quality of poultry may be produced by adopting the following methods:—

A.—Chickens must be of correct market type which implies that they must come from parentage of the same desirable type.

B.—After being hatched, the chickens require to be gently pushed by regular and generous feeding.

C.—The too common practice of allowing chickens to 'pick up their own living,' or in any other way neglecting them, will seriously affect their growth and quality.

D.—Roomy coops, freedom from lice, new ground and cleanly surroundings are requisites for quick and healthy development.

E.—If the chickens are reared in brooders, care should be taken that they are not over-crowded. This undesirable treatment is too frequently the cause of disease and death.

F.—A robust chicken should eat heartily, grow well and be so handled as to put on flesh rather than develop sinew and muscle.

G.—Chickens should not be given any food for twenty-four hours before being killed. This will ensure their crops being empty of food when killed, a matter of importance.

FOWLS WHICH ARE BOTH GOOD LAYERS AND DESIRABLE MARKET TYPES.

Farmers and other poultry keepers who desire fowls which are both good egg-layers and acceptable market types will find any one of the following varieties most suitable:—

Barred, White, Buff or Partridge Plymouth Rocks.
White, Buff, Partridge or Columbian Wyandottes.
Buff, White or Black Orpingtons.
The Dorking family.
Rhode Island Reds.

The English market calls for a white skin of fine grain and flesh coloured legs. The bird to be in good condition when killed and put on the market.

Mr. GILBERT.—Before concluding I would like the members of the committee to look at some eggs which I brought with me. They are strictly new-laid eggs. I think they were laid yesterday afternoon. You can see how attractive they look when graded and put in proper boxes.

Committee adjourned.

Certified correct,

A. G. GILBERT.

IMMIGRATION---FARM LABORERS AND DOMESTIC SERVANTS

HOUSE OF COMMONS,

ROOM No. 32,

WEDNESDAY, March 6, 1912.

The Select Standing Committee on Agriculture and Colonization met at 11 a.m., the Chairman, Mr. Sexsmith, presiding.

The CHAIRMAN.—We have Mr. W. D. Scott, Superintendent of Immigration, with us this morning and he will address the committee on what the department has been doing in the matter of supplying farm labour.

Mr. SCOTT.—Mr. Chairman, I am here this morning in response to an order of this committee 'for the purpose of informing the members what has been done and what is now the policy of the department in regard to supplying immigrants for farm labour and domestic service throughout the country.' Before dealing with this matter in detail, I may mention that I appeared before the Committee on Agriculture and Colonization on February 15, 1911, and at that time gave a rather full outline of the policy of the department, both in regard to the countries in which an immigration propaganda is being carried on and as to the classes the department was catering for. I enumerated the points at which immigration offices were maintained, dealt with the question of newspaper advertising and bonus payments, and touched upon the Orders in Council which had been passed under the Immigration Act further restricting the classes who may legally enter Canada. As the evidence I gave one year ago equally applies to the policy at the present time, and as there are many new members in this committee, I mention my former appearance here as a perusal of the evidence then given, which appears on pages 113 to 129 of the 'Report of the Select Standing Committee on Agriculture and Colonization for the Third Session, 11th Parliament,' may be interesting to some and will render it unnecessary for me to cover the same ground this morning.

By Mr. Morphy:

Q. What year was that?

A. Last year, 1911. I may say in commencement that the policy of the department is to cater for farmers, farm labourers and female domestic servants. No inducement is held out to other classes, and in all literature distributed by the department a notice appears which reads as follows:—

> Farmers, farm labourers and female domestic servants are the only people whom the Canadian Immigration Department advises to go to Canada.
>
> All others should get definite assurance of employment in Canada before leaving home, and have money enough to support them for a time in case of disappointment.
>
> The proper time to reach Canada is between the beginning of April and the end of September.

In all lectures, advertisements, and pamphlets distributed, attention is called to the great dearth of agricultural labour in this country, and full and reliable information is furnished as to wages, &c., &c.

With regard to the placing of new arrivals, I may say that in the case of immigrants going to the province of Nova Scotia, desiring farm work, positions are secured for them either by the Dominion Immigration Agent at Halifax or by Mr. A. S. Barnstead, Secretary of the Bureau of Mines and Industries, who meets incoming vessels.

In the case of New Brunswick, immigrants are provided with employment by the Dominion Immigration Agent at St. John or through the office of Mr. Wilmot, Superintendent of Immigration for the province of New Brunswick.

The immigration to Prince Edward Island is very light, practically all who have gone there having been induced to do so by the Rev. J. A. Winfield, a special agent who for a number of years placed the advantages of the Island before intending emigrants in the old country. As he was personallly acquainted with all who went, he either arranged their employment before they left England or directed them to some personal acquaintance who arranged it for them upon arrival.

In Quebec, immigrants have been placed by the Dominion Immigration Agent at Quebec and Montreal, by the provincial agents at the same points, or by Canadian Government employment agents working on a commission basis, of whom there are at the present time sixteen located according to the list which I now hand in for the information of the committee.

CANADIAN GOVERNMENT EMPLOYMENT AGENTS.

In the Province of Quebec, who will secure free of charge, situations as farm help or domestic servants in their localities for all emigrants desiring such positions.

(Corrected to March 1, 1912.)

County.	Name of Agent.	Railway Station and Post Office Address.	
Argenteuil	E. C. Whitfield	Calumet	Quebec.
Arthabaska	Leon Samson	Stanfold	"
Brome	A. W. Westover	Sutton Jct.	"
Drummond	Alfred Millar	South Durham	"
	Chas. Manseau	Drummondville	"
Deux Montagnes	Jos. Legault	St. Hermas	"
L'Assomption	Max Janson	L'Assomption	"
Megantic	Samuel de Champlain	St. Ferdinand	"
Missisquoi	C. P. Taber	Cowansville	"
Richmond	Geo. McCracken	Danville	"
St. John's and Iberville	J. Augustine Latour	Iberville	"
	Alphonse F. Gervais	St. John's	"
Stanstead	H. E. Colt	Coaticook	"
	John F. Belisle	"	"
Vaudreuil	Emmanuel Bourke	Rigaud	"
Vercheres	Ernest Chicoine	Vercheres	"

In this connection I may state that as is only natural the English-speaking immigrants prefer to go to the eastern townships rather than to districts where French is the predominant language, the result being that the French-speaking districts are compelled to depend largely for their immigrant help upon those coming to this country from France and Belgium. As Quebec has not suffered to the same extent as Ontario through the drain upon its population by migration to the prairie provinces, the demand for help there is not so great as in Ontario.

APPENDIX No. 3

In Ontario, farm help has been placed through three methods. The Provincial government, through their office in Toronto, have placed with farmers the help directed to them by their agents in the British Isles or who reach their office through other sources. The Dominion government have placed in the last three fiscal years through the employment branch of the head office at Ottawa 466 immigrants at farm work, and through the office maintained at the Union Depot in Toronto, 1,308 in 1909-10 and 1,411 in 1910-11. There are at the present time in the province of Ontario 83 Canadian government employment agents located at the points shown on the list which I now hand in.

CANADIAN GOVERNMENT EMPLOYMENT AGENTS.

In the Province of Ontario, who will secure, free of charge, situations as farm help or domestic servants in their localities for all emigrants desiring such positions.

(Corrected to March 1, 1912.)

County.	Name of Agent.	Railway Station and Post Office Address.	
Brant	Gilbert Hanmer	Burford	Ontario.
"	Robert E. Featherstone	Paris	"
Bruce	J. S. Nichol	Paisley	"
"	S. T. Jackson	Ripley	"
"	Robt. Neil	Tara	"
"	R. H. McKay	Walkerton	"
Dundas	Wesley Hamilton	Chesterville	"
"	S. W. Van Allen	Mountain	"
Durham	Edward Power	Port Hope	"
"	David Armstrong	Millbrook	"
Elgin	S. M. Morris	Rodney	"
"	Wm. Atkin	Springfield	"
"	A. D. Carley	West Lorne	"
"	C. H. White	Aylmer West	"
Essex	H. O. Daykin	Leamington	"
Frontenac	Jas. F. Knapp	Kingston, 383 Johnston St., Ont.	
Grenville	E. L. B. Cornell	Kemptville	Ontario.
Grey	R. H. Fortune	Ayton	"
"	E. Mountcastle	Dundalk	"
"	Jas. Sword	Owen Sound	"
"	Thomas Douglas	Meaford	"
Haldimand	G. H. Harris	Caledonia	"
"	Alex. Mitchell	Cayuga	"
"	Andrew Rogers	Jarvis	"
Halton	John C. Campbell	Burlington	"
"	Robert Milligan	Georgetown	"
"	David Hartley	Milton	"
Hastings	J. Lyle Anderson	Belleville	"
"	Jas. McAlpin	Marysville	"
Huron	F. S. Scott	Brussels	"
"	Wm. McQuillan	St. Helen's	"
"	Jas. W. Bone	Marnoch	"
"	Wm. Patterson	Auburn	"
Kent	George Johns	Bothwell	"
"	E. Bruce Richardson	Tilbury	"
"	Robert Armstrong	Whitebread	"
"	John McAgy	Chatham	"
"	George Thompson	Blenheim	"
Lambton	W. S. Fuller	Watford	"
Lanark	Alex. McLean	Carleton Place	"
"	Henry Taylor	Perth	"
Lennox	H. Hunter	Napanee	
Lincoln	John Scott	St. Catharines	"
Middlesex	J. H. McKay	Ailsa Craig	"
"	Wentworth McGuffin	Thorndale	"
"	Henry Hardie	Mount Brydges	"
"	James Healey	Strathroy	"
Norfolk	Thos. E. Alton	Port Rowan	"
"	John Allego	Simcoe	"

CANADIAN GOVERNMENT EMPLOYMENT AGENTS.—*Continued.*

In the Province of Ontario, who will secure, free of charge, situations as farm help or domestic servants in their localities for all emigrants desiring such positions.

(Corrected to March 1, 1912.)

County.	Name and Agent.	Railway Station and Post Office Address.	
"	C. R. Smith	Waterford	Ontario.
Northumberland	Samuel Nichols	Cobourg	"
"	G. A. Kingston	Campbellford	"
"	W. R. Taylor	Colborne	"
"	E. Terrill	Wooler, via Trenton	"
Ontario	George Rose	Port Perry	"
Oxford	George Law	Drumbo	"
"	Jas. Stirton	Ingersoll	"
"	Pierce Irving	Woodstock	"
Peel	James Stork	Bolton	"
Peterboro	Geo. H. Howsen	Peterboro	"
Prescott	Thos. A. VanBridger	Plantagenet Springs	"
Russell	W. C. Cameron	Metcalf	"
"	A. F. Stevenson	Russell	"
Simcoe	Geo. Warnica	Barrie	"
"	William Jermyn	Bradford	"
"	W. H. Manning	Coldwater	"
"	W. E. Stoddard	Cookstown	"
"	Jas. B. Henderson	Orillia	"
"	Benjamin Cheesman	Stayner	"
"	James Boake	Thornton	"
Stormont	David J. Gallinger	Cornwall	"
Victoria	Morgan Johns	Lindsay	"
Welland	Leslie V. Garner	Welland	"
Wellington	Wm. Peterkin	Arthur	"
"	Scott Cowan	Palmerston	"
"	Wm. Young	Guelph	"
"	Harry Catley	Mount Forest	"
Wentworth	T. H. Corman	Stony Creek	"
York	T. F. McMahon	Richmond Hill	"
"	C. W. Davidson	Mount Albert	"
"	James Mair	Oak Ridges	"
"	Victor A. Hall	King	"
"	T. Scott	Sutton West	"

Similar to those in the province of Quebec, these agents work on a commission basis, being allowed $2 for each immigrant placed at farm work or for each female immigrant placed in domestic service. When an inquirer goes to the office of a booking agent in the old country and intimates there his desire to go to Canada to engage in farm work, the question of destination is discussed until he finally settles upon the particular province to which he wishes to proceed. If the selection should be, say, Ontario, he is then shown a list of the points at which Canadian government employment agents are located, and is told of the demand for help and the rate of pay approximately in each locality, and is advised to book to a point where a Canadian government employment agent is located, so that he may experience no difficulty in securing employment immediately upon arrival. To make this system clearer, we will take an individual case. George Stokes, aged 19, who for six years had worked as a farm lal ourer at Catshill, Bromsgrove, England, went on July 3, 1911, to the office of E. J. Rapone, booking agent, and after conversation as to the best point to which to proceed, decided to go to Peterborough, Ontario. He purchased a ticket to Canada on the SS. *Ascania* of the Cunard line, filling out the necessary form to supply the steamship company with the information contained upon their manifest, which form I herewith hand in.

C
DE

IMPORTANT:—Under the Canadian Immigration Law every Immigrant over 18 years old is required to be possessed of $25; every child between 5 and 18, $12.50. Double these amounts when landing between 1st November and 28th February inclusive.

LIST OF RACES OR PEOPLES.

African (black).
Armenian.
Bohemian.
Bosnian.
Bulgarian.
Chinese.
Croatian.
Cuban.
Dalmatian.
Dutch.
East Indian.
English.
Filipino.
Finnish.
Flemish.
French.
German.
Greek.
Hebrew.
Herzegovinian.
Irish.
Italian (North).
Italian (South).
Japanese.
Korean.
Lithuanian.
Magyar.
Mexican.
Montenegrin.
Moravian.
Pacific Islander.
Polish.
Portuguese.
Roumanian.
Russian.
Ruthenian (Russniak).
Scandinavian (Norwegians, Danes and Swedes)
Scotch.
Servian.
Slovak.
Slovenian.
Spanish.
Spanish-American.
Syrian.
Turkish.
Welsh.
West Indian.

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The booking agent under our bonus system being entitled to £1 for the booking, filled out a bonus application and had the same signed by Stokes, which I also hand in.

A 504421.

EMIGRANT'S APPLICATION FOR TICKET.

Name? George Stokes. Age? 19. Address? Catshill, Bromsgrove. How long engaged as farmer, farm labourer, gardener, stableman, carter, railway surfaceman, navvy or miner? Six years as farm labourer. When? 1905 to 1911. Where? Catshill, Bromsgrove. Last occupation prior to sailing? Farm labourer. How long so engaged? (as above). Are you British subject by birth or naturalization? By birth. Destination in Canada? Peterborough, Ontario. Intended occupation in Canada? Farm labourer. Sailing from? Southampton. Via SS.? *Ascania.* Proposed date of sailing? July 11, 1911. Steerage or intermediate? Steerage.

OTHER MEMBERS OF FAMILY ACCOMPANYING.

Name.	Occupation.	Age. M.	F.	C
. . . . .				
. . . . .				
. . . . .				

'Booked to Mr. Geo. H. Howsen, Employment Agent, Peterborough.'

(Stamp) 'Canada Government.' 'Rec'd 5 July, 1911,' 'Ansd. . . . . .' 'Birmingham.'

(Stamp) 'Immigration,' 'July 17, 1911,' 'Received.'

I certify that the above answers are in accordance with the facts.

GEORGE STOKES,
Applicant.

Date, July 3/11.

BOOKING AGENT'S CERTIFICATE.

I, the undersigned booking agent, have to-day sold ticket No. 51700 to the party or parties mentioned in this application and believe that the statements made therein are true and correct.

Agent's name, 'EDWARD JOHN RABONE,'
Address, 'Bromsgrove,'.
'Worcs.'

(Stamp)

Page, 4. Line, 18. Oc., Far. 6 yrs.

Prev. Occ. . . . . Action. . . . . .

(Stamp)

'British Bonus Allowed.'

(Stamp) 'Edward J. Rabone, Auctioneer, House, Land and Business Agent, Surveyor and Valuer, Bromsgrove.'

CANADIAN GOVERNMENT AGENT'S CERTIFICATE.

I have to-day examined the party or parties above mentioned and believe that the particulars given are in accordance with the facts. I consider that the parties are physically and mentally sound, that they belong to one of the classes prescribed by the Canadian regulations, and that they are in all respects desirable immigrants for Canada.

Signature.....

Canadian Government Agent,

'Worcester.'

'1 M' British bonus allowed.

In order that Employment Agent Howson, at Peterborough, to whom this party was being directed, would know beforehand of Stokes' intended sailing an advice form, in accordance with the usual arrangement, was immediately sent by mail to him by the booking agent. (Form handed in.)

A 507221.

CANADIAN IMMIGRATION SERVICE.

ADVICE FORM TO CANADIAN GOVERNMENT EMPLOYMENT AGENT.

July 3, 1911.

SIR,-

I beg to advise you that I have to-day sold a ticket to George Stokes, who intends to sail for Canada on the 11th day of July, 1911, on the SS. *Ascania.*

(Stamp)
Immigration,
July 24, 1911,
Received.

I have given the above mentioned emigrant a card of introduction to you, and stated that you would endeavour to secure a suitable situation. The following is a description of emigrant: Age? 19 years. Married or single? Single. Last occupation in United Kingdom? Farm Labourer. Other occupations followed in United Kingdom.....

.....

.....

.....

.....

.....

(Stamp)
'Edward J. Rabone,
Auctioneer,
House, Land & Business Agent,
Surveyor & Valuer,
Bromsgrove.'

Kind of employment wanted in Canada? Farm labourer.
'This is a good young man with excellent character.'

APPENDIX No. 3

If accompanied by wife and children give full details as to number and age. . . .

. . . . . .

. . . . . .

. . . . . .

To Mr. Geo. Howsen, Canadian Government Employment Agent, Peterborough.

EDWARD JOHN RABONE. Bromsgrove, *Agent for Cunard SS. Co.*

Upon receipt of this Advice Form, Agent Howson was naturally on the lookout for a suitable farm situation for Stokes upon arrival. Albert Nichols, a farmer at Bridgeworth, was at that time an applicant for a farm-hand, and in due course of time Stokes arrived, presented his card of introduction, and was duly directed to the farm of Mr. Nichols and commenced there. (Card of introduction handed in.)

Copy of Card—

Front—

CANADIAN IMMIGRATION SERVICE.

'6'

To 'Mr. Geo. H. Howsen'
Canadian Government Employment Agent.
'Peterboro,'

This will introduce to you Mr. George Stokes who I advised you would sail for Canada on the 11th day of July, 1911, per SS. *Ascania*.

(Sgd.) EDWD. J. RABONE BROMSGROVE.

Agent for Cunard SS. Co.

(see over)

(Sgd.) GEORGE STOKES—(Signature)

Back—

N. B.—The object in giving this introduction card is to place new arrivals in communication with Government Officials and the Government Employment Agents in Canada, so that advice of which they may stand in need may be obtained and agricultural or domestic employment may be secured for those who desire it. Under special circumstances, communication should be had with Mr. W. D. Scott, Superintendent of Immigration at Ottawa.

You are invited to send to Mr. J. Obed. Smith Assistant Superintendent of Emigration. 11-12, Charing Cross, London, S.W., the names and addresses of your friends or relations in the Old Country who may be interested in receiving free Government literature, descriptive of Canada.

Form K.

(Stamp). . . . . 'Edward J. Rabone,'
'House, Land & Business Agent'
'Surveyor & Valuer'
'Bromsgrove.'

Howson, to secure his $2, sent in claim for commission No. 29301, which I present for your inspection.

No. 29301. A. 507220.

CLAIM FOR COMMISSION.

22 July, 1911.

This is to certify that I have this day placed George Stokes who landed at the Port of Quebec on the 21st day of July, 1911, Ex.-SS. *Ascania* as a farm labourer with Mr. Albert Nichols of Bridgenorth, P.O., Province of Ont., to work on his farm. The following are the terms of engagement:—

(Stamp)
Commission allowed.
Commission claimed $2.00.

(Stamp)
Immigration,
July 24, 1911,
Received.

(Sgd.) G. H. Howson.

Canadian Government Employment Agent.

Peterboro, Ont. P. O.

(Stamp)
Traced
Page 4, Line 18

CERTIFICATE OF EMPLOYER.

I hereby certify that the above mentioned immigrants are in my employment.

. . . . . .

Signature of Employer.

Date. . . . . .*19* . . . . . .

Address.

To secure commission, Agent should mail this form, together with letter of advice from Booking Agent and card of introduction addressed to Superintendent of Immigration, Ottawa, Canada.

Immediately on receipt of this at my office a circular letter was sent to the reported employer, the reply to which reached me on August 1, 1911, which I also hand in.

No. 29301 A509811

IMMIGRATION BRANCH, DEPARTMENT OF THE INTERIOR.

SIR,— Ottawa, 25, 7, 1911.

It has been reported to me that George Stokes an immigrant who recently arrived in Canada, engaged with you as a farm labourer. I would be pleased if you would let me know if such is the case, stating if he is still with you, what kind of satisfaction he is giving and what wages he is receiving. I desire this information in order to

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form a fair opinion as to the satisfaction immigrants are giving to the farmers. Please reply on space underneath and use enclosed envelope (upon which no postage is required) in mailing your answer to me.

O.K.

Your obedient servant,

W. D. SCOTT,

Superintendent of Immigration.

Albert Nichols, Esq.,
Bridgenorth, Ont.

(Stamp)
Immigration,
Aug. 1, 1911,
Received.

July 28th.

DEAR SIR,—I have received your notice and find all reported to being right and I find him giving good satisfaction and the wages being $12 per month and is still engaged with me yet.

I remain,
Yours truly,
(Sgd.) ALBERT K. NICHOLS,
Bridgenorth.

We have in this individual case traced the immigrant from the purchase of his ticket until he is located as a farm labourer in the country. The system followed in this case is that pursued in the thousands of other similar instances.

By Mr. Thornton:

Q. This man Howson at Peterboro was the Immigration Agent?
A. Yes.
Q. And got the $2?
A. Yes.
Q. What were his duties?
A. He found a place for that farm labourer.
Q. And that is the whole compensation?
A. $2, yes.
Q. And any immigrants coming out to find positions as farm labourers must go through him?
A. Not necessarily. He is one of our Employment Agents, and if the Booking agent gives him a card of introduction to one of these agents, we guarantee to him employment at farm work.

By Mr. Staples:

Q. Is the policy the same in the west?
A. They are distributed in the west from our Winnipeg office.

By Mr. Sutherland:

Q. What influence is brought to bear to induce the immigrant to come to Canada? Does it rest with the booking agents?
A. The whole of Canada is explained to him. He is given a general idea of the conditions in Canada.

Q. But with regard to the agents you employ in Great Britain, have you not a large number of farm delegates going around?

A. Yes?

Q. Giving prospective immigrants information?

A. Yes?

Q. And trying to influence them to come out here?

A. Yes.

Q. What proportion of these representatives are from Eastern Canada or from Ontario, and what proportion from Western Canada?

A. This year there are five from Ontario and twenty-five from Western Canada.

Q. 25?

A. Yes and 5 from Ontario.

Q. How many for Western Canada?

A. 25 from Western Canada and one in Quebec and one in Nova Scotia.

Q. How many were there last year?

A. I haven't the figures here.

In general terms I may say that it has worked satisfactorily. The principal dissatisfaction being that there has never in any year been sufficient numbers arriving to fill the requirements. The Canadian Government employment agents who were progressive, who corresponded with large numbers of the booking agents in the Old Country and who thus placed the needs of their immediate locality in a direct manner before the emigrating public, received the lion's share, whereas these who were less diligent in asking for help received only small numbers in reply to their requests.

To my mind the plan of having emigrants placed by an agent living in close proximity to the prospective employer is more desirable than having the work done through one or more central offices which would, of necessity, in many cases be long distances from the work. If an immigrant books to Toronto and then has to re-purchase a ticket farther on or a portion of the way back, additional expense is incurred by him which he may be unable to meet or which, if met, constitutes a drain upon his resources which he can ill afford. It is, therefore, more desirable that the immigrant should be booked from the old country direct to the railway station nearest his work. Having employment agents working on a commission basis rather than on salary gives the added advantage that if the agent does no work he receives no pay. The inauguration of the system has naturally been slow. The booking agents in the old country were not quick to see the advantage of the system, but I believe a very large percentage are now in favour of it. The whole success depends upon the efforts which the employment agents put forward to bring the claims of their district before the British public.

By Mr. Sutherland:

Q. Before you go any farther you had, last year, about 83 of these local distributing agents?

A. Yes.

Q. And you say a good many of those did not get any men at all?

A. I will tell you in a few moments if you will kindly wait until I have finished this, then I will gladly answer any questions. I have the information here.

By Mr. Morphy:

Q. Do I understand that Mr. Scott does not wish to be interrupted? Because there are certain questions which suggest themselves whilst he is reading his paper that will be forgotton if we have to wait until afterwards. If that is the intention it would be better to let the members have memo. pads on which to make memoranda.

However, I suppose there is a regular practice which is followed by this Committee. I do not quite understand the rule and I do not want to be rude.

A. I am quite willing to answer any questions at all that may be asked, but not being accustomed to public speaking, like members of Parliament, I would like to be permitted to finish my remarks and then I will be glad to give you any information I have.

Q. You do strike me as having a verdancy that we cannot all boast of?

A. Yes, quite so.

I may say that some are under the mistaken idea that when an agent received an application from a farmer for farm help he sent it to Ottawa, Ottawa forwarded it to the old country, and the farmer would have to wait until a labourer was secured for him and forwarded to his destination. This is not at all the practice. Early in the year, in the month of January say, employment agents are supposed to write to the booking agents giving in round numbers the requirements of their vicinity and mentioning approximately the rate of wages paid. From amongst the numbers sent in answer to this request the farmers are supplied in so far as the numbers arriving enable the employment agent to do so. This year we have adopted a slightly different principle and have circularized the 3,000 booking agents as to the requirements of each employment agent. The following circulars have been issued:—

Labour Demand Circular No. 1.

DEPARTMENT OF THE INTERIOR, GOVERNMENT OF CANADA,

EMIGRATION BRANCH,

11-12 CHARING CROSS, LONDON, S.W.,

January 29, 1912.

DEAR SIR,—Advice has been received of the following requirements of the Canadian Government employment agents in the provinces of Ontario and Quebec, for farm hands and domestic servants during the months of March, April and May.

I trust you will make an effort to direct to the employment agents the help they each require.

You may accept this circular as an assurance by the Department that should a greater number present themselves for one particular agent than his needs then require, the surplus will be diverted by the Government agents at the port of landing to positions of equal value elsewhere.

Yours faithfully,

J. OBED SMITH,

Assistant Superintendent of Emigration.

JOHN ALLGEO, Simcoe, Ontario, requires 20 single experienced men, wages $20 to $25 per month; 5 married experienced men with families, wages $300 per year; 12 domestics, wages according to ability.

WM. JERMYN, Bradford, Ontario.—Forty single experienced men, wages $25 per month; 30 single inexperienced men, wages $10 to $15 per month; 6 domestics, wages $10 to $15 per month.

HENRY TAYLOR, Perth, Ontario.—Twelve single experienced men, wages $15 to $20 per month; 24 single inexperienced men, wages $10 to $15 per month; 6 domestics, wages $8 to $12 per month.

ALEX. MITCHELL, Cayuga, Ontario.—Ten single experienced men, wages $200 to $250 per year; 5 single inexperienced men, wages $100 to $200 per year; 10 domestics, wages $10 per month.

WM. ATKIN, Springfield, Ontario.—Ten single experienced men, wages $16 to $22 per month; 5 single inexperienced men, wages $12 to $16 per month; 10 married experienced men with families, wages up to $22 per month; 20 domestics, wages $8 to $12 per month.

E. L. B. CORNELL, Kemptville, Ontario.—Thirty single inexperienced men, wages $10 to $15 per month; 6 domestics, wages $10 to $15 per month.

C. W. DAVIDSON, Mount Albert, Ontario.—Twelve single experienced men, wages $240 to $300 per year; 12 single inexperienced men, wages $150 to $200 per year; 3 married experienced men with families, wages $240 to $300 per year; 3 married inexperienced men with families, wages $150 to $200 per year.

D. ARMSTRONG, Millbrook, Ontario.—Six single experienced men, wages $10 to $20 per month; 2 single inexperienced men, wages according to ability; 2 married experienced men with families, wages $10 to $20 per month; 2 domestics, wages $4 to $8 per month.

ALEX. MCLEAN, Carleton Place, Ontario.—Forty single experienced men, wages $20 per month; 35 single inexperienced men, wages $10; 10 domestics, wages according to ability.

JOHN H. CARR, Belleville, Ontario.—Fifteen single experienced men, wages $18 to $20 per month; 30 single inexperienced men, wages $10 to $15 per month; 30 domestics, wages $10 to $15 per month.

MORGAN JOHNS, Lindsay, Ontario.—Thirty single experienced men, wages $15 to $20 per month; 60 single inexperienced men, wages $10 to 15 per month.

JAMES F. KNAPP, Kingston, Ontario.—Twenty-seven single experienced men, wages $10 to $25 per month; 21 single inexperienced men, wages $10 to $15 per month; 10 married experienced men with families, wages $20 to $25 per month; 15 domestics, wages $8 to $15 per month.

JAMES STIRTON, Ingersoll, Ontario.—100 single experienced men, wages $20 to $25 per month; 45 single inexperienced men, wages $15 per month; 18 married experienced men with families, wages $300 per year; unlimited demand for domestics, wages $10 to $15 per month.

S. B. MORRIS, Rodney, Ontario.—Ten single experienced men, wages $20 per month; 5 married experienced men with families, wages $200 per year; 5 domestics, wages $8 per month.

D. HARTLEY, Milton, Ontario.—Thirty-eight single experienced men, wages $18 to $20 per month; 38 single inexperienced men, wages $10 to $15 per month; 24 married experienced men with families, wages $20 to $25 per month; 14 married inexperienced men with families, wages $15 per month; 20 domestics, wages $10 to $12 per month.

VICTOR A. HALL, King, Ontario.—Eighteen single experienced men, wages $175 to $225 per year; 23 single inexperienced men, wages $125 to $160 per year; 2 married experienced men with families, wages $200 to $250 per year; 8 domestics, wages $12 to $15 per month.

GEO. H. MOONEY, Ripley, Ontario.—550 single experienced men, wages $20 to $25 per month; 900 single inexperienced men, wages $12 to $15 per month; 40 married

APPENDIX No. 3

experienced men with families, wages $200 to $300 per year; 95 domestics, wages $12 to $15 per month.

E. Mountcastle, Dundalk, Ontario.—115 single experienced men, wages $18 to $26 per month; 175 single inexperienced men, wages $12 to $18 per month; 34 domestics, wages $5 to $12 per month.

Wesley Hamilton, Chesterville, Ontario.—Twenty single experienced men, wages $20 per month; 16 married experienced men with families, wages $25 per month; 22 domestics, wages $10 per month.

James Boake, Thornton, Ontario.—Sixteen single experienced men, wages $15 to $20 per month; 4 single inexperienced men, wages $10 to $15 per month; 2 domestics, wages $5 to $10 per month.

A. F. Stevenson, Russell, Ontario.—Seventy-five single experienced men, wages $220 to $260 per year; 35 single inexperienced men, wages $15 to $18 per month; 20 married experienced men with families, wages $240 to $275 per year; 5 married inexperienced men with families, wages $160 to $200 per year; 20 domestics, wages $10 to $12 per month.

Geo. R. Warnica, Barrie, Ontario.—Twenty-five single experienced men; 15 domestics, wages according to ability.

G. H. Howson, Peterboro, Ontario.—300 single experienced men, wages $18 to $25 per month; 150 single inexperienced men, wages $10 to $15 per month; 30 married experienced men with families, wages $20 per month; 30 married experienced men without families, wages $25 to $30 per month; 75 domestics, wages $12 to $18 per month.

E. C. Whitfield, Calumet, P.Q., requires at once, one experienced man, single or married, without family, wages $20 per month for winter and higher in summer. Work all year round.

Jas. B. Henderson, Orillia, Ontario.—Ten single experienced men, wages $25 per month; unlimited demand for domestics, wages $8 to $15 per month.

Thos. A. Van Bridger, Plantagenet Springs, Ontario.—Four single experienced men, wages $20 per month; 2 single inexperienced men, wages $12 per month; 2 married experienced men with families, wages $20 per month; 2 domestics, wages $10 per month.

E. A. Powers, Port Hope, Ontario.—Ten single experienced men, wages $15 per month; 5 single inexperienced men, wages $10 per month; 10 domestics, wages $20 per month.

A. F. Gervais, St. John's, P.Q.—Twenty single experienced men, wages $10 to $12 per week; 20 married experienced men with families, wages $7 to $10 per week; 50 domestics, wages $10 to $12 per month.

J. Scott Cowan, Palmerston, Ontario.—250 single experienced men, wages $10 to $25 per month; 100 domestics, wages according to ability.

L. V. Garner, Welland, Ontario.—Sixteen single experienced men, wages $25 per month; 50 single inexperienced men, wages $20 per month; 30 domestics, wages $10 to $20 per month.

James D. Haig, Cobourg, Ontario.—200 single experienced men, wages $20 to $25 per month; 50 single inexperienced men, wages $15 to $18 per month; 10 married experienced men with families, wages according to ability; 10 married inexperienced men with families, wages according to ability; 100 domestics, wages $12 to $20 per month.

E. Terrill, Wooler, via Trenton, Ontario.—Sixty-five single experienced men, wages $20 per month; 50 single inexperienced men, wages $8 to $10 per month; 20 married experienced men with families, wages $20 per month; 5 married inexperienced men with families, wages according to ability; 15 domestics, wages $8 to $12 per month.

James Stork, Bolton, Ontario.—Thirty-one single experienced men, wages $20 to $25 per month; 24 single inexperienced men, wages $8 to $14 per month; 6 domestics, wages $8 to $12 per month. Also requires for summer, 30 experienced men, wages $20 to $25 per month; 30 partly experienced men, wages $15 to $18 per month; 20 inexperienced men, wages $8 to $12 per month; 6 domestics, wages $8 to $12 per month.

Thomas Douglas, Meaford, Ontario, requires 30 single experienced men, wages $18 to $22 per month, according to ability; 10-12 female domestic servants, wages $10 to $12 per month.

R. H. McKay, Walkerton, Ontario, requires 30 single experienced men, wages $250 per year; 30 single inexperienced at $175 per year.

W. H. Manning, Coldwater, Ontario, requires 13 single experienced, wages $20 per month; 35 single inexperienced, wages $15; 4 married experienced, with families, wages $25 per month; 4 married inexperienced, with families, wages $20 per month; 35 female domestics servants, wages $5 to $15 per month.

Henry Hardie, Mount Brydges, Ontario, requires 3 single experienced (from 18 to 21 years), wages $150 per year and board; 2 female domestic servants (Scotch girls preferred), wages according to ability.

Geo. A. Rose, Port Perry, Ontario, requires 75 single experienced, wages $20 per month; 50 single inexperienced, wages $10 to $15 per month.

Robert Milligan, Georgetown, Ontario, requires 75 single experienced, wages $18 to $22 per month; 75 single inexperienced, wages $15 to $20 per month; 25 married experienced with families, wages according to ability; 50 female domestic servants, wages $9 to $12 per month.

Labour Demand Circular No. 2.

DEPARTMENT OF THE INTERIOR, GOVERNMENT OF CANADA.

EMIGRATION BRANCH.

19th February, 1912.

Dear Sir,—Advice has been received of the following requirements of the Canadian Government employment agents in the provinces of Ontario and Quebec, for farm hands and domestic servants during the months of March, April and May.

I trust you will make an effort to direct to the employment agents the help they each require.

You may accept this circular as an assurance by the Department that should a greater number present themselves for one particular agent than his needs then require, the surplus will be diverted by the Government agents at the port of landing to positions of equal value elsewhere.

Yours faithfully,

J. OBED SMITH,

Assistant Superintendent of Emigration.

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D. J. Gallinger, Cornwall, Ontario, requires 100 single experienced men, wages $10 to $15 per month; 5 married experienced men with small families, wages $10 to $20 per month; 50 female domestic servants, wages $8 to $15 per month; also requires in June and July, 100 single experienced farm hands.

Robert Neill, Tara, Ontario, requires 6 single experienced men, wages $15 to $20 per month; 8 single inexperienced men, wages $10 to $15 per month; 4 female domestic servants, wages $9 to $14 per month.

Wm. Young, Guelph, Ontario, requires 45 single experienced men, wages $25 to $28 per month; 15 single inexperienced men, wages $10 to $20 per month; 15 domestics, wages $12 to $15 per month.

E. F. Boyle, Paisley, Ontario, requires 60 single experienced men, wages $10 per month; 20 domestics, wages $8 to $10 per month.

Robert E. Featherstone, Paris, Ontario, requires 20 single experienced men, wages $18 upwards, with board; 29 single inexperienced men, wages $10 upwards, and board; 2 married experienced men, with families, wages according to ability; 1 married inexperienced man with family, wages according to ability; 20 female domestic servants, wages $8 and upwards with board.

Benjamin Cheeseman, Stayner, Ontario, requires 3 single experienced men, wages $15 per month; 2 single inexperienced men, wages $10 per month; 3 married experienced men with families, wages according to ability; 4 female domestic servants, wages according to ability.

John McAgy, Chatham, Ontario, requires 40 single experienced men, wages $20 to $25 per month; 15 single inexperienced men, wages $10 to $15 per month; 8 married experienced men with family, wages according to ability; 1 married inexperienced man with family, wages according to ability; 20 domestics, wages $8 to $10 per month.

S. W. Vanallen, Mountain, Ontario, requires 3 single experienced men, wages $20 a month; 2 single inexperienced men, wages from $5 a month upwards, according to ability; 2 married experienced men with families, wages according to ability; 2 domestics, wages according to ability.

W. S. Fuller, Watford, Ontario, requires 5 single inexperienced men, wages $10 per month; 5 domestics, wages $10 per month.

W. F. McGuffin, Thorndale, Ontario, requires 100 single experienced men, wages $12 to $17 per month; 50 single inexperienced men, wages $10 to $12 per month; 50 domestics, wages $8 to $12 per month.

James Legault, St. Hermas, Quebec, requires 10 single experienced men, wages $10 per month; 7 single inexperienced men, wages $5 to $6 per month; 11 domestics, wages $6 to $8 per month.

William Peterkin, Arthur, Ontario, requires 10 single experienced men, wages $15 to $25 per month.

C. Gilbert Hanmer, Berfurd, Ontario, requires 10 single experienced men, wages $20 per month; 5 domestics, wages $8 to $10 per month.

George Law, Drumbo, Ontario, requires 50 single experienced men, wages $18 to $20 per month; 12 single inexperienced men, wages $10 to $12 per month; 25 domestics wages $8 to $10 per month.

Alfred Millar, South Durham, Quebec, requires 22 single experienced men, wages $10 per month.

JAMES W. BUNE, Marnoch, Ontario, requires 50 single experienced men, wages $15 to $20 per month; 1 married experienced man with family, wages $20 per month and free house; 13 single inexperienced men, wages $8 to $10 per month.

A. D. CARLEY, West Lorne, requires 20 single experienced men, wages $18 to $20 per month according to ability; 12 single inexperienced men, wages according to ability; 2 married experienced men, with families, wages according to ability; 17 female domestic servants, wages according to ability.

R. H. FORTUNE, Ayton, Ontario.—Requires 10 single experienced men, wages $20 to $25 per month; 10 single inexperienced men, wages $15 to $20 per month; 10 female domestic servants, wages $8 to $12 per month.

C. P. DAVER, Cowansville, Quebec.—Requires 30 single experienced men, wages according to ability; 30 single inexperienced men, wages according to ability.

P. IRVING, Woodstock, Ontario.—Requires 100 single experienced men, wages $20 to $25 per month; 10 married experienced men, with families, wages $275 to $300 per year; 25 female domestic servants, wages $10 to $12 per month.

F. S. SCOTT, Brussels, Ontario.—Requires 20 single experienced men, wages $20 to $30 per month; 10 single inexperienced men, wages $10 per month; 10 female domestic servants, wages according to ability.

These wages are in addition to board and lodging.

Errata.

All concerned will please note that the rates offered for the men required by Mr. A. F. Gervais, St. John, P.Q., on Labour Demand Circular No. 1 are 'per month,' not 'per week' as indicated on that circular.

Immigrants going to or west of Winnipeg who desire positions as farm help or domestic servants are given cards of introduction to the Commissioner of Immigration at Winnipeg, an advice form is sent to him by the booking agent in advance, and he always has on hand sufficient applications from western farmers to place the immigrant immediately upon arrival.

In addition to the Canadian Government Employment Agents already mentioned, there are the following special Employment Agents who are allowed a commission on farm labourers or domestics placed by them:—

The Salvation Army, Toronto.

Mr. K. Marquette, 82 St. Antoine Street, Montreal.

Mrs. E. Francis, 71 Drummond Street, Montreal.

Mrs. Jane Radford, 95 Union Avenue, Montreal.

Mrs. High, 251 Crawford Street, Toronto.

Mrs. Helen Sanford, 130 Austin Street, Winnipeg.

Mrs. E. M. Edwards, Vancouver, B.C.

Miss L. G. Rothwell, 390 Daly Avenue, Ottawa.

Mrs. S. McArthur, 363 College Avenue, Winnipeg.

Dealing generally with the demand for farm help, it may be pointed out that there are two principal reasons for the dearth of help in the eastern provinces. The

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first is the movement to the West, and in this connection I would point out the residence by provinces of homesteaders who have located in Western Canada during the last two fiscal years and nine months of the present fiscal year.

	Fiscal Year 1909-10.	Fiscal Year 1910-11.	9 months April to Dec. 1911.
Prince Edward Island	91	68	54
New Brunswick	130	140	100
Nova Scotia	188	237	135
Quebec	964	1,101	801
Ontario	3,965	4,438	2,645

These figures refer to homesteaders only and do not take into consideration the thousands who purchased land from railways or other land holding corporations; or the hundreds from the eastern provinces who are now in the west working as farm hands for others. Any member here must know of many cases from his own constituency of good farm hands who went west on the harvest excursions during past years, who remained there and thus helped to create the scarcity in the east which no doubt exists.

By Mr. Best:

Q. Can you tell us on what basis these agents are appointed, there are five in Ontario and 25 in the Northwest?

A. We generally employ them about three to four months at $100 a month and all travelling expenses.

Q. But what basis are they employed on? Why is it that for the small population in each of the provinces in the west there are six and there are only five here in Ontario.

A. I could not tell you that; they are appointed by the Government; I simply carry out the instructions I get.

Q. Well, I would like to know, because it is pretty generally known that there is no place in Canada where farm help is scarcer than it is in Ontario.

By Mr. Sutherland:

Q. Do I understand that there were 4,438 homsteaders from Ontario located in the west in 1910-11?

A. Yes, the fiscal year.

Q. And during that time I notice, that is for the fiscal years 1909-10 and 1910-11 there were placed by your distributing agents in Ontario 4,177 men, that is that there were more homesteaders left Ontario in the one year 1910-11 than all the settlers who were placed in that province by your local agents in two years.

A. I haven't the total number placed in Ontario last year.

Q. Well, that is according to the return brought down in the House?

A. I think there was a return brought down, yes.

Q. That there were 2,363 during the fiscal year 1910-11 and 1,814 during the year 1909-10, making a total of 4,177, yet you say there were 4,438 homesteaders from Ontario located in that one year, 1910-11.

A. Who were born in Ontario. The figures of the census for 1911 are not yet available, but for the purpose of showing this western movement I may quote for the years 1901 and 1906 the numbers in Alberta, Saskatchewan and Manitoba combined who were born in the Provinces of the East.

Birthplace.	1901.	1906.
Prince Edward Island	907	2,957
New Brunswick	1,489	3,514
Nova Scotia	2,705	5,990
Quebec	12,567	19,905
Ontario	95,795	163,962

From these figures it will be noticed that in five years the population of the Prairie Provinces had been increased by settlers from the east as follows:—

From Prince Edward Island	2,050
" New Brunswick	2,025
" Nova Scotia	3,285
" Quebec	7,338
" Ontario	68,167

As already stated the figures are not yet available to show the westward movement between 1906 and 1911, but very likely it was as great as for the period from 1901 to 1906.

The second reason for the scarcity of farm help, almost as important as the first I believe, is the tendency on the part of farmers to engage their help for the busy season only and turn them adrift as soon as the rush season is past. So long as this practice continues, so long will a considerable proportion of the farmers be unable to secure help when they desire the same.

By Mr. Sutherland:

Q. Do you find any farm labourers out of employment during the winter months?

A. Yes.

Q. You do?

A. Yes.

Q. Did you find any during the past winter?

A. They don't want farm work though.

Q. Then it is not the fault of the farmers that they are not engaged during the winter?

A. Because he is not hired for the year.

Q. Is it not a fact that many farmers during the winter months cannot get labour?

A. I cannot tell you that.

Q. There are a great many who have great difficulty in getting labour?

A. At present we are trying to place as many farm labourers as we can by the year, but the great percentage of farmers hire their labour for from six to eight months. At the end of that period the farm hand does not stay at the village nearest the farm; he goes into the cities, to Hamilton, London, or Toronto, where there are factories, and being a husky young man tries to get work there where they are looking for men and they get into the factories.

Q. Is it not a fact that a great many farm labourers will not engage for more than six or eight months in order that they may go west in the fall of the year?

A. I cannot tell you that. I may say that there is now a considerable tendency both in the east and the west to abandon the practice and to keep the help for the year around. In the west the extension of mixed farming provides employment for the help which was not available in the winter months when more attention was given simply to the growing of wheat. In the east I believe the change has largely been caused by the realization that help could not be secured unless kept for the full twelve months. The question of wages is also a factor in deciding the ultimate destination of immigrants coming to the country. In this connection I would quote

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the following table of the average wages of farm help at the beginning of 1911, according to the Census and Statistics Office:—

	Per year with board.	Average value board per year.
P. E. Island	$ 244 89	$ 121 80
New Brunswick	289 40	135 00
Nova Scotia	321 30	138 00
Quebec	313 41	135 00
Ontario	335 84	144 00
Manitoba	400 00	176 40
Saskatchewan	402 50	168 00

These figures show an increase as we move westward, but I believe the strong drawing card of the west has been the hope in the breast of the immigrant that he would be able to secure ultimately one of the free homesteads.

By Mr. Best:

Q. What method have you of securing the average wages?

A. These are figures taken from the Census and Statistics Branch. The value of domestic help is lowest in Prince Edward Island and highest in Alberta and British Columbia. Nova Scotia, New Brunswick and Quebec are the same, viz: $170 per year including board, board being valued at $90. Ontario averages about $210 with board, board being valued at $110. While the figures of wages quoted above are those collected by the Census Bureau and are doubtless correct, I gather from the Census Commissioner that these represent largely the wages paid to Canadians, or those who have been in Canada for some time. I would not care to attempt to quote exact figures of wages paid to immigrant farm help and domestics. Very few of the applicants who apply to this office or to any of our Employment Agents say much about the cost of board. They usually offer from $200 or $30 for an experienced immigrant farm hand. This of course includes board. For an inexperienced immigrant farm hand they offer from $100 to $200 per annum, board included.

The question of female domestic help is almost as serious as that of farm help. Wages in the Old Country are good, and it is difficult to induce girls to come to Canada unless the mistress here is willing to take a girl who has been used to factory or like employment, and in many cases these have not been successful. Mrs. Francis and Mrs. Radford at Montreal, Mrs. High at Toronto, and Mrs. Sanford of Winnipeg, have for a number of years been fairly successful in bringing domestics out in parties accompanied by a matron. Mrs. Sanford's work for the past four years has been as follows:—

1908-9	64
1909-10	175
1910-11	116
1911-12 (9 months)	143

Mrs. Radford brought—

1908-9	92
1909-10	99
1910-11	259
1911-12 (9 months)	265

Mrs. Francis brought—

1908-9	603
1909-10	715
1910-11	1,126
1911-12 (9 months)	1,087

These ladies are allowed a bonus of $5 on each domestic brought to Canada by them, and now in addition a commission of $2 for placing the domestic in employment, besides which they receive certain fees from both the employer and the employee. Some Ottawa ladies at the close of last year decided to try the same system in this city, and I understand that Miss Rothwell, who went to the Old Country to represent them, arrived in Canada the other day with a party of 30. The department is willing to extend the arrangement above mentioned to any other person of good character who wishes to engage in the work, but it may be pointed out that it is almost impossible to secure the domestics unless the fare is advanced, and in many cases employers do not feel like taking the risk attending that course.

I have already referred to the great attraction which the free homesteads of the west have proved to be to those considering Canada as a future home, but lest the committee should think that the policy of the department has been to unduly favour the western section, I may mention that the great bulk of our literature, especially that distributed in the British Isles, refers to the Dominion as a whole, and due space is given in the pamphlets to each of the various provinces. I have here copies of the pamphlets, both in English and French, which we distribute and which the members of the committee may examine. In the six years to March 31, 1911, we have printed and distributed the following in the quantities named:—

Canada in a Nutshell	900,000
Canada the Land of Opportunity	660,000
Classes wanted in Canada	500,000
Atlas of Canada	488,000
Work, Wages and Land	400,000
Canada wants Domestic Servants	400,000
An Agricultural tour in Canada	334,000
Canada as seen through Scottish eyes	211,000
Canada as it appeared to Scottish Agriculturists	200,000
Cost of living in Canada	200,000
The Country called Canada	170,000
Settling on Canada's Free Land	150,000
Land regulations in Canada	110,000
Facts for Settlers	100,000
Home building in Canada	100,000
Gaelic pamphlet	10,000
Total	4,930,000

or over 800,000 per year.

In addition to these general pamphlets we have during the same period distributed 1,500 copies of two pamphlets dealing with New Brunswick, 354,450 copies of three pamphlets on Nova Scotia, and 60,000 copies of two pamphlets dealing with Prince Edward Island.

Dealing with Quebec we have had two pamphlets, 'Eastern Townships,' of which there have been printed 70,000 copies and 'Lake St. John Region of Quebec,' 25,000 copies.

Ontario has been given fair attention in the following issues:—

How to succeed in Canada (Farm labour in Ontario)	212,500
Ontario Wants Farm Labourers	102,000
New Ontario pamphlet	25,000
Thunder Bay and Rainy River District	15,000
Canada's Farthest South	20,000
The Heart of Canada	15,000

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Our agents in the Old Country have instructions to be impartial in the advice they give regarding each province and to give every assistance possible to the agents who from time to time are sent over to represent the individual provinces by their respective governments.

It is gratifying for me to be able to report that the immigration for the current fiscal year is considerably in excess of that of any previous year. For the last three fiscal years it has totalled as follows:—

1908-9	146,908
1909-10	208,794
1910-11	311,084

For the first ten months of this fiscal year the immigration has been 300,705 and for the full year will likely be about 358,000. For the ten months just referred to only 67,338 were Continental Europeans, 111,706 were from the States and 121,661 were from the British Isles.

By Mr. Best:

Q. Is it a fact that there are double as many farm labourers hired by the year in Ontario as there are in the Western Provinces?

A. I could not tell you that.

Q. There is so much stock raising in Ontario that we need farm help all the year around in a great many cases, whereas in the West they grow wheat and do not need it.

A. I am simply stating facts when I say that a very large number of farmers hire men from six to eight months; a great many do not keep their men during the winter.

Q. A great many of them do and many more would if they could get the help.

By Mr. Marshall:

Q. Do you not think that if the farmers paid higher wages they would not have so much trouble in getting help?

A. Well, of course that would be some inducement to them to stay.

Q. It is the case with us in the factory we have a lot of men hired by the year although we are not doing much work now, but we have to keep them, and I think that would apply to the farmers.

Mr. SUTHERLAND.—On account of the immigration to Western Canada from the a farm labourer can get work at any season of the year.

Mr. BEST.—It is a fact that five out of every ten will not hire for a year, they want to hire for six or seven months.

Mr. SUTHERLAND.—On account of the immigration to Western Canada from the other provinces it is quite evident that unless those people who go west are replaced by others coming out from the old land the old provinces will soon be in a very unsatisfactory condition. Now you have, I understand, according to this statement that you made before this committee last year, a copy of which I have here, about 81 farmer delegates, or you did have last year, located in Great Britain?

A. Eighty-one? I think we had about eighty-one employment agents in Ontario.

Q. Of the farm delegates that were sent to the British Isles in the fiscal year 1909-10 I notice about 58 were from Western Canada and you say there are five from Ontario this year?

A. Five from Ontario, yes.

Q. Now do not these agents influence the emigrant in deciding where he is going to locate?

A. They are advised to treat Canada as a whole and to speak of it as a whole, but I suppose it is quite natural that a farm delegate from Ontario would only speak of his own province.

Q. You have an inspector of local distributing agents in Ontario?

A. We have two.

Q. And they report from time to time as to the fitness of the men you have employed as agents?

A. Yes.

Q. And you say you have found it work out quite satisfactorily?

A. Yes.

Q. And the system of distributing through local agents you say is better than having the men distributed through a central point?

A. Yes, because a great many who go to the cities never reach the farm.

Q. That is because there is not a fair distribution made of the immigrants?

A. The immigrant is a free agent, he can go wherever he pleases.

Q. Is it not a fact that a great many counties in Ontario did not receive one man from your branch at all?

A. I imagine that may be so, some agents are not satisfactory.

Q. No, but take whole counties, one after the other, they have not received a single man from your agents?

A. I could not say as to that. .

Q. You have here a list of 83 agents in Ontario, and of that number 33 did not place a single man last year?

A. Yes, and some of them placed a hundred.

Q. Yes, several hundreds, I believe in one county alone there were nearly 700 men placed. A. We will take now the county of Halton. I see that in 1907 the agent there placed 112, in 1908 he placed 109, in 1910 he placed 102, and in 1911 he placed 179.

Q. Yes, and in the county of Bruce how many were placed?

Mr. HENDERSON.—Yes, the agent in Halton placed 179 last year, but the poor fellow will not place any more, he died a short time ago.

Mr. SCOTT.—Is that so, I am sorry for it.

By Mr. Sutherland:

Q. How do you account for your system having worked out so satisfactorily in several counties and so unsatisfactorily in others? Take for instance in Bruce, in 1910, there were 350 and in 1911 there were 417, and just a little farther on in the county of Dufferin, notwithstanding the fact that that county has gone back 3,476 in the last ten years you did not place a single man there?

A. As I understand the business it all depends on the activity of the men appointed.

Q. But is it not the duty of the department to see that these men do the work for which they are appointed.

By Mr. Morphy:

Q. Would the department keep a man on year after year unless he placed men in his district?

A. Unless I received instructions from the government to change him.

Q. How many men who have been on the list for several years have never placed a man and still remain on the list?

A. I have the list here.

Q. Can you answer that offhand?

A. No, I could not do that.

Q. It seems to me that it is ridiculous to allow men to stay on the list who ought to be active but who are absolutely drones.

A. Mr. Sutherland mentioned a moment ago that there were 81 farm delegates to the Old Country last year.

By Mr. Sutherland:

Q. That was according to your statement for 1909-10?

A. No, it was 41, I think that is correct, you have added two years together.

Q. 'For the fiscal year 1909-10' it says at page 135?

A. That was in 1909-10, there were 40 that year, and in 1910-11 there were 41.

Q. That was for two years then?

A. Yes.

Q. In Ontario I notice you have the names of George Binnie of Bunessan, of P. H. McKenzie of Lucknow, Rev. T. E. Bourke of Kingston, G. A. Aylesworth of Napanee, A. Chamberland of Toronto and C. C. Myers of Ottawa?

A. Yes.

Q. These are your farming delegates from Ontario for last year, 1910-11?

A. Yes.

Q Now, are they farmers?

A. I could not tell you, all I know is that I receive instructions from the Minister to appoint certain people, and I carry out his instructions.

Q. Are they appointed at an annual salary?

A. They are appointed for three or four months at $100 per month and actual expenses.

Q. Rev. Mr. Burke of Kingston would not appear to be a farmer, and as for C. C. Myers—is he not an editor here in Ottawa?

A. I think so.

Q. And Mr. Chamberlain, was he not the President of the British Welcome League in Toronto?

A. I have had correspondence with him, I do not know him.

Q. And he was one of your agents, inducing people to come to the city of Toronto, and handing out cards as a government agent offering these people free accommodation in Toronto, and not only that, but asking them to be grateful to Mr. Chamberlain for all he had done for them?

A. I have absolutely nothing to do with that.

Q. I have some of those cards which he has been handing out to the immigrants. It says on the back,

BRITISH WELCOME LEAGUE.

The Bearer of this card of introduction from

HERBERT HICKMAN,

Shipping Agent, Bridgwater.

On presenting it to Mr. Albert Chamberlain, will be given two days Welcome to the League's Headquarters, including bed each night, and one good meal,

FREE OF CHARGE.

Every effort will be made to give reliable advice to you, and in return you are requested to be of good behaviour, and grateful to Mr. Chamberlain for all he does for you.'

Mr. MORPHY.—That is the Chamberlain who was in my county last year talking reciprocity.

Mr. SCOTT.—I never saw him.

He was not in the employ of the government permanently. He was only for a limited period.

Mr. MORPHY.—I am glad to hear you say so. I hope it is not as bad as I thought it was.

Q. I notice that in the report Mr. Sutherland has here there are a large number of counties in Ontario that did not have an agent at all: Why?

A. We originally had about 175 agents altogether, when the thing was first started, in the year about 1907, I think, and some of them were found to be useless.

Q. Why were others not appointed in their places?

A. Oh well, I could not tell you that. At the present time there is a memorandum, I have asked the Minister for permisssion to appoint a certain number.

Q. How is it that there are 25 agents for Western Canada and only five for the whole of Ontario?

A. That is a different question, you are speaking now of the farmer delegates to the Old Country—I couldn't tell you that.

Q. Has it been brought to the attention of the Minister?

A. To the attention of the Minister?

Q. Yes, all these questions?

A. I can simply appoint those the Minister directs me to appoint, I make no suggestions to him.

Q. Do you not make a suggestion as deputy?

A. I am not a deputy.

Q. In your position have you no authority, power, right or duty imposed upon you to take note of the proceedings of this committee and lay any salient points that are dealt with here before the Minister?

A. No sir.

Q. Then as I understand the situation you are here merely to deliver a certain address?

A. To give you information.

Q. Then to my mind the sooner we have the powers and authority of this committee changed so as to enable us to dig into these matters and have the responsible men before us, the better it will be for agriculture in Canada.

You are supposed to report to the Minister every year, are you not, a list of those distributing agents who have failed in their duty to place men on the farms in their district?

A. No, I simply make the annual report to the department.

Q. You make no reference to the fact that there might be twenty or thirty of these men holding appointments who are doing absolutely nothing?

A. No.

Q. Can you tell me under whose province that will come?

A. I could not say that: if I get instructions to appoint a man I make the appointment, and if I get instructions to dismiss a man I give him his dismissal.

Q. If a man has been there four or five years and has not placed a single man is that shown in the report?

A. I do not think so; no.

Q. No attention is paid to that whatever?

A. No.

Q. That accounts for so many counties in Ontario failing to get any men?

A. That is a matter for the member for the county, he generally looks after that.

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Mr. Ross (Middlesex).—That is in the annual report, and it is open to any member to point out the fact in the House. This is a matter that, as has been properly said, should come up in the discussion on the estimate; any member can point out that a certain inspector or a certain employment agent in a certain county has placed no men there for three or five or ten years, as the case may be. If that be done I have no doubt the man who has failed in his duty will be changed.

By Mr. Armstrong (N. York):

Q. Is there any machinery requiring an immigrant entering the country to have a certain amount of cash, and if so, how much?

A. At the present time a mechanic, anybody other than a farmer, a farm labourer, or a female domestic servant must have $25 in his possession, that is by Order in Council No. 924.

By Mr. Arthurs:

Q. You said in your main address that these distributing agents in Ontario were good agents, or otherwise, according to their activity?

A. Yes.

Q. That if they wrote to the booking agents often enough they would get men?

A. Yes.

Q. How many booking agents have you?

A. About 3,000.

Q. Do you think they could write to 3,000 booking agents three or four times a month?

A. No, the department selects the booking agents who are likely persons in their respective capacities, but some of them are active and some are not active.

Q. Do they get any salary, other than the $2 bonus?

A. No.

By Mr. Sutherland:

Q. Do you consider the Salvation Army as an agent?

A. We do, yes, a special agent.

Q. I notice that last year they received a special grant of $15,516, and as booking agents they received $9,107, and that they received a grant of $2,000 for distributing immigrants, and also a commission for placing immigrants of $1,904?

A. The $2,000 was for the distribution of immigrants in British Columbia.

Q. And the $1,904 was?

A. For placing immigrants with farmers.

Q. The Salvation Army is at Toronto. Now, I notice in the circular that you sent over to the British Booking Agents notifying them who the agents were, you have no agent in Toronto?

A. No we endeavoured to meet the difficulty that when immigrants come out and stop at places like Toronto, it means they remain in the cities, they never go to the farm, and our whole object in having these distribution agents in Ontario was to get the booking agents, as I laid before you a personal case, one particular case of a good farm immigrant, looked directly from the place he is leaving to the place where he is going to work in Ontario. Our desire is to keep them away from the city which will always get sufficient immigrants. Our object was to get them booked through the cities directly to the districts where they are to be employed.

Q. Yet you have an agency in Toronto?

A. We have.

Q. You have a staff there and an office?

A. Yes.

Q. And you say you placed how many, 1,300 men from that point last year?

A. I prepared a statement for the House some time ago.

Q. 1,380, was it not?

A. Something likt that.

Q. And in this notice you sent out to the booking agents they are notified that bonuses will not be paid to agents who book men to a point where you haven't an agent?

A. No, the notice does not say that, I think you must have misread it. I issued a circular on the 5th of July, 1911, and the reason for issuing that circular was the fact that I had correspondence with the Director of Colonization in Toronto, and it was principally on account of that correspondence that I issued the circular on the date I have named, addressed to Steamship Booking Agents, in the United Kingdom, as follows:—

IMMIGRATION BRANCH, DEPARTMENT OF INTERIOR.

OTTAWA, CANADA, July 5th 1911.

Circular to Steamship Booking Agents in the United Kingdom.

Sir,—Canadian Government Employment Agents were appointed in Ontario and Quebec so that persons desirous of securing work on farms might proceed to the point at which these agents are located and without charge, be placed in suitable positions. The Department regrets that some of the British Booking Agents have neglected to direct persons booked by them to these Employment Agents, but have booked them to large cities where no Employment Agent is located, with the result that the immigrant has engaged in industrial pursuits, and so been lost to the agricultural communities.

With the object of remedying this condition, it has been decided that no bonus will be paid upon immigrants arriving on and after October 1st, 1911, who are booked to cities in Ontario and Quebec where no Canadian Government Employment Agent is located. Booking Agents have been supplied with a list of Canadian Government Employment Agents corrected to March 1st, 1911, and if further copies are needed they may be secured from Mr. J. Obed Smith, Assistant Superintendent of Emigration, 11-12, Charing Cross, London, S.W.

Booking Agents will be good enough to understand that it is the intention of the Department to enforce this rule strictly, and in the event of any claims being disallowed on those grounds, nothing will induce the Department to alter its original decision, unless the agent interested can supply this Department with the name and address of the farmer with whom the immigrant, upon whom the bonus has been refused, is working.

Bonus will be paid as heretofore upon domestic servants whether going to country districts, to towns or cities.

Your obedient servant,

W. D. SCOTT,

Superintendent of Immigration.

That is a matter of business, we are not giving up money for people who are not going on the land, and I for one propose to protect myself in every way against that. I do not propose to pay a bonus on people going to the city.

Q. You say you are not going to pay bonuses where no Canadian Government Agency is located. You know that the Ontario Government had six or seven agents working in Great Britain?

A. Yes.

Q. And they were sending out men and placing them from Toronto?

A. Some of them.

Q. Your letter to the Director of Colonization mentions Toronto and no other point, and you made the statement that it was owing to a letter you received from him that the regulation was enacted?

A. Yes.

Q. As a matter of fact there were half a dozen men who had violated the conditions, and you were asked to deport these men. You took action and arrested one of them, but when Godfrey & Robinette got busy, instead of the matter being probed you refused to do anything more. Now, is it not a fact that with the agents of the Ontario Government placing immigrants in Ontario this circular was going to be a great handicap in the matter of securing farm labour?

A. No, Ontario gets more immigrants than any of the other provinces in the Dominion.

By Mr. Webster:

Q. Have you an agent named McIntyre?

A. D. C. McIntyre, apparently from this list I have in my hand, is not now in the employ of the department. In 1907 he placed 30 people, in 1908 81, in 1909 43, but since that he has placed none.

Q. Is he in the employ of the government to-day?

A. I do not think so.

Q. Well, who is in the employ of the government in his place?

A. I cannot tell you that. There are a great many vacancies in these employment offices—a great many.

By Mr. Steele:

Q. Can you give us any idea of the reason why so many farm labourers who are brought out to Canada are unsatisfactory on the farm? If the farming delegates are instructed to secure men suitable as farm laborers I would like to know the reason why so many men come out who are not satisfactory on the farm?

A. I might say that in the case of every farm labourer placed through our employment agencies we send a circular to the farmer employing that immigrant. I cited a particular case this morning, that of a man named George Stokes who left Bromsgrove in England on the 9th July, 1911, and was placed with a man of the name of Albert Nichols, at Bridgeworth. I wrote to Mr. Nichols, of Bridgeworth, on the 25th July, saying:

> It has been reported to me that George Stokes, an immigrant who recently arrived in Canada, engaged with you as a farm labourer. I would be pleased if you would let me know if such is the case, stating if he is still with you, what kind of satisfaction he is giving and what wages he is receiving. I desire this information in order to form a fair opinion as to the satisfaction immigrants are giving to Ontario farmers. Please reply on space underneath and use enclosed envelope (upon which no postage is required) in mailing your answer to me.

Mr. Nichols replied to me on 28th July. He said:

> I have received your notice and find all reported to being right and I find him giving good satisfaction and the wages being $12 per month and is still engaged with me yet.

We follow up every domestic servant that is placed through these distributing agents in the same way. Before we pay the agent his commission, we ascertain whether the man or girl is actually working where the agent says they are, and we ask what degree of satisfaction they are giving. The reply in this particular case is the reply we get in 95 per cent of the cases. At my office I have thousands and thousands

of them, both in reference to farm help and female domestic servants, and 95 per cent are satisfactory.

By Mr. Best:

Q. Was the case you mentioned that of a man or a boy?

A. He was 19 years of age.

By Mr. Chisholm (Antigonish):

Q. What about the employee? Have you any information as to whether the employees are satisfied with their lot, speaking generally?

A. We have endeavoured several times to communicate with these immigrants. After we get this notice from Mr. Nichols saying that this man is there we might write to Mr. Stokes probably. We have not done so in this particular case perhaps, but sometimes we do endeavour to find out how the immigrant feels about the country, for it is necessary to know what the immigrant thinks. We have in some cases written to immigrants to find out how they like the country, and some of the answers are not very satisfactory as far as the employer is concerned, especially in the matter of food and living accommodation, sleeping quarters, and so on.

By Mr. Paul:

Q. Have you at the present time a Mr. Aylesworth in your employ?

A. Yes.

Q. What are his duties?

A. He inspects these distributing agents.

Q. And he goes to England?

A. Yes, as a lecturer.

Q. Has he been doing that for a number of years?

A. Three or four years.

Q. For how long at a time?

A. Three or four months.

Q. And he is employed by the Department permanently?

A. Permanently, yes.

Q. And what is his salary?

A. I suppose about $1,200 a year.

By Mr. Sutherland:

Q. He reports to you on the condition in each county, does he?

A. On the employment agencies, these distributing agents.

Q. Has he reported to you for instance that in the county of Middlesex there were only six men placed in 1910 and only fifteen in 1911, and yet that county has gone back nearly 4,500 people, and there is an enormous demand there for men?

A. He would not have that knowledge.

Q. Did he report that the agents were satisfactory?

A. I cannot tell that. I can get you a report on any county or on any agent.

Q. You have a number of agents there I believe who have not placed any men since they were appointed in 1907?

A. Very likely.

Q. And yet you continue to employ these agents?

A. I have nothing to do with the dismissals. I must take my instructions from the Minister.

Q. As a matter of fact these men, notwithstading the inspection and notwithstanding the fact that they have been doing nothing, have been continued from year to year?

A. Some of them for a number of years, yes.

Q. You made the statements that you consider your method more satisfactory than that of placing the immigrans from a central agency?

A. Yes.

Q. Why did you adopt the central agency system in regard to western Canada and also in regard to Nova Scotia, New Brunswick and Quebec—I notice most of the men are placed from Montreal and Quebec—while you adopt this policy in Ontario, singling out the province of Ontario? In the United States you spend $233,601 to promote immigration, and none of that has been devoted to bringing people into Ontario; and you have spent in Great Britain $303,915; while the total expenditure for immigration for 1911 was $1,079,125. Now you have an agency in Montreal, in Quebec and in Toronto. I notice that the agency for Quebec cost $28,101, the agency at Montreal $12,074, and the agency at Toronto, $2,767. Now you admit that a great many counties have not received many men through your agents. Will you tell this Committee why you believe this to be the best system and why you have singled out Ontario?

Mr. CHISHOLM (Antigonish).—Is that a proper question to ask?

By Mr. Sutherland:

Q. I would like to know if your local distributing agents have reported to you that in the last two years no men have been placed in the counties of Dufferin, Lennox and Addington, Lambton, and Leeds. Although these six counties have lost over 20,000 people in ten years they have not received any men to replace those they have lost. I would like to ask whether he has reported that nothing has been done with regard to emigration in order to supply the demand for men in those counties. I would also like to know if he shows in his report that the counties of Middlesex and Lambton have only received very very few men?

A. He would not have any knowledge of it, Mr. Sutherland, that is not his work.

Q. Then he does not find out how many men these agents are placing?

A. No.

Q. He does not inquire how many men these agents are placing?

A. We have that information in the office at Ottawa here.

Q. You cannot tell us why he inspects them?

A. Simply with regard to whether the man is a suitable and respectable man, &c., if the Committee want copies of all the reports I will be only too happy to submit them.

Q. Is it necessary to report on that question every year?

A. I think so, yes.

Mr. Ross (Middlesex).—I want to ask just for information, Mr. Sutherland, where do you get the figures you are quoting?

Mr. SUTHERLAND.—From a return brought down in the House which was asked for, and which I will be pleased to produce. I assume that it has been prepared by Mr. Scott.

Mr. Ross.—You will understand that the Minister, the Deputy Minister and all the heads of departments would have that information so that there would be no reason for a report. What is the purpose of your question? He must have the information before him because you have it.

Mr. BEST.—I think the reason for that question is that the farmers look to this Agricultural Committee; many counties that are represented here have failed to get the farm help they require, and if we never found fault the conclusion would be that we were satisfied. Very well, I want to let the Minister know that we are not satisfied with the present conditions.

By Mr. Sutherland:

Q. The purpose of my question was to find out what these local inspectors are doing. Mr. Scott admits that he does not inquire whether the agent is placing people or not, but merely seeks to ascertain whether he is a respectable man?

A. The inspector goes a little further than that, he instructs them how to do their work, how to get people placed, how to frame up a letter to the booking agent in the old country.

Q. And you say the inspector instructs them. Does he not ask them how many men they have placed?

A. I suppose he does ask them.

Q. If he does not how does he know it has been satisfactory or not?

A. He reports on each one of them.

Q. As to whether satisfaction is given?

A. Well, I have seen the reports, but I did not read them very carefully.

Q. I am just trying to get information?

By Mr. Steele:

Q. There are some counties that have no distributing agents at all, for instance in the county of Perth; can you tell me why there are no agents in those counties?

A. I could not tell you that; I have never been instructed to appoint them, that is all.

Q. Can you give me any idea who is responsible?

A. If any member wants a distribution agent appointed he would write to the Minister and say that he would like to have 'John Doe' appointed in that county.

Q. It is in the hands of the members?

A. In the hands of the members, that is it.

By Mr. Henderson:

Q. Is there any limit to the number of employment agents in any county?

A. None whatever, except that we would like to have a man given a radius of about five miles so that he could place the men in that territory.

Q. There might be a dozen or there might be two?

A. Yes, it does not cost anything.

By Mr. Chisholm (Antigonish):

Q. It is generally the case in every province in the Dominion?

A. Some districts get more than others.

Q. And some portions of a province get a very large proportion of the immigrants?

A. As I stated before about 50 per cent of the immigrants come to friends in Canada nowadays, and they naturally go into the district they have friends

By Mr. Marshall:

Q. Where a number of men are located, it is because the local agent is active?

A. Yes.

Q. Now, I was looking at the list and I find that at my home town the agent you have there is a first class business man, but I do not think he would bother with it at all; as a matter of fact he has not placed men in employment at all. I think the agent should be a farmer, and I think we are to blame, Mr. Chairman, I do not think Mr. Scott is so much to blame for this. If we have an agent who is not placing men in the location where we live we should report the matter to the Department. The Minister and the Department will not know that the agent is not working actively unless their attention is drawn to it. I can quite understand that it depends entirely on the man, and I have in my mind a first class man in my neighbourhood, a farmer who meets the farmers, who can talk with them, who writes a good letter and quite a

capable man, and I have already mentioned the subject to him, but he replied, 'Well, $2 won't pay me to bother with it.' I say that a cheap man is generally no good, an experienced man can demand good wages, and instead of censuring the Department here I think that as representatives of the different parts of this country, when we find that we are not getting immigration, we should report to the Department and endeavour to get it put on a satisfactory basis

Mr. SMITH (South Ontario).—It will be all right to do that now, but it would have been no use a year ago.

Mr. MARSHALL.—Just take my own case, I never thought about it until I began to look into the question lately although I am interested in a business that gives employment to a great number of people. I think we must be reasonable in our criticism of the Department, it is our own fault if we have not been looking after matter. I think one of the reasons why there is a scarcity of help, we are losing men every year, and I am very much interested in getting them, is that if we had the right kind of men engaged, and if the Department would pay them the wages that would make it worth their while that they would get the men. Do you not think that it is our own fault if we do not pay these men enough to make it worth their while looking after this matter properly.

Mr. ARMSTRONG (North York).—With an inspector appointed for the purpose of looking after these agents would you not imagine that it would be part of that inspector's duty to ascertain the number of men the agents have placed in order to see whether they are doing their work properly.

Mr. MARSHALL.—Yes, I think so.

Mr. SCOTT.—As I say I have not looked at the reports of the inspectors carefully.

Mr. MARSHALL.—I think the system of paying so much per head is wrong because you pay $1 or $4, whatever it may be, no matter what kind of man the agent sends and hundreds of men coming here are not worth their salt. I think it would be a good thing if you were to get better agents over there and pay them by the month or by the year instead of so much per head.

By Mr. Thompson (Qu Appelle):

Q. It has been stated that in Ontario one system is adopted of having agents in different parts, while in other provinces the work is done from a central point, and the complaint is made that in Ontario a great many localities receive no immigrants at all. How do the other provinces compare in that particular with Ontario—is it better or worse?

A. Well, of course, Quebec, Montreal, St. John and Halifax are ocean ports. Toronto is not an ocean port.

Q. In Quebec, for instance, can you tell whether the people are better distributel or worse? I think it is an important point?

A. I do not think I have the information here as to those placed by our agents in the province of Quebec. The number placed at farm work in Quebec is not very large, because the bulk of our immigrants are English-speaking people, and as I explained they do not care to live with French families where nothing but French is spoken. In the province of Quebec, the eastern townships are the only places where we have those distributing agents. In Nova Scotia and New Brunswick, Halifax and St. John are ocean ports. West of the lakes, Winnipeg is the gateway of the west, and all immigrants change trains there. The conditions are entirely different in the west from what they are in the east.

By Mr. Thoburn:

Q. What are the duties of those local agents who receive $2 a head for immigrants? Are the immigrants sent out to them or have they to write to the Old Country for them?

A. I explained that in my address, and presented the whole scheme whereby the immigrant is booked from some point in England, Scotland or Ireland direct to the employment agent in this country.

By Mr. Sutherland:

Q. I have a statement of the number of men required by the local agents, a statement sent out by your Assistant Superintendant, in London, and I notice that of the 101 agents that you have in Ontario and Quebec only 39 of these ask for men?

A. There is a supplementary list, which I have handed in, dated 19th February, Circular No. 2. If you read the notice on that circular I think you will find it says that further information will be sent from time to time.

Q. This list is compiled, I suppose, at your office and sent over to your assistant in London?

A. He prints it and circularizes the agents.

Q. Is it not a fact that letters have been appearing in the British press from time to time from dissatisfied immigrants, complaining that booking agents are sending men out to these local agents knowing that this information is old and that there is no machinery available for placing these men on their arrival here. For instance you say 'William Atkin, Springfield, Ontario: 10 single experienced men, wages $16 to $22 per month; 5 single inexperienced men, wages $12 to $16 per month; 10 married experienced men with families, wages up to $22 per month; 20 domestics, wages $8 to $12 per month.' Now you do not say whether these are wanted for a few months or for the year, or how it is. It is my experience that the immigrants want to know definitely if they are to be employed by the year or for how long, and the farmer also wants to know the kind of men he is getting. If he is a dairyman he wants to be sure that the class of help he is getting is going to be of some use. Another man may be in the live stock business, and another kind of man might suit him. But under your system of sending these men out from Great Britain on this meagre information how are you going to satisfy them? Could you not do that better from a central office. You have advices of information in your office stating exactly what the farmer requires and you could divide these men up and give more general satisfaction than by having them sent out from the Old Country. My experience of the booking agents is that they have no faith in this system and the fact that the farming delegates have been mostly from western Canada has certainly had a great influence in preventing Ontario from getting satisfactory men. If you had a reasonable proportion of delegates from Ontario better results would be obtained, and the province of Ontario would get better men and more of them. But there is that fear that the immigrant will not be properly placed and if you had a central agency you would overcome a great deal of the dissatisfaction of the farmers and the immigrant would be better satisfied. You have adopted that system at Winnipeg and in the eastern provinces, and why it is not done in Ontario is something beyond my comprehension?

A. The conditions are absolutely different in Ontario and the eastern townships of Quebec from those of any other part of the Dominion. Quebec, Nova Scotia and New Brunswick have their ocean ports where the immigrants land. At Winnipeg you have the gateway of the west, where all the people change cars and are distributed. The farmers send in their applications direct to the office. Of course there are a great many who do not go near the office because 50 per cent of the immigrants arriving here are going to friends. Having friends in the country they never appear at any of the immigration offices except for inspection at the port of landing. Now,

regarding the feasibility of directing people to the proper kind of employment, I can give you the case of a Scotchman and his wife of the name of Davidson. They arrived at Quebec in the early part of May, 1911, and were sent up here to Ottawa to a namesake of my own—a dairyman. Mr. Davidson, though a farm labourer, had no knowledge of milking, and what my namesake wanted was some one who could milk. Now, it is a long way to send people from Quebec to here to a place for which they are not suited. If Davidson had gone to an employment agent in western Ontario, with the telephone facilities they now have, our distributing agent could have phoned to the farmer, the farmer could have come in and seen the man, talked with him, and found out what his qualifications were, whether he was a general farm labourer, or a ditcher, or whatever he might have been. The nearer you get the man to the farmer who is employing him the better.

Q. The trouble is you are not getting him there?

A. Ontario gets more than any other province.

By Mr. Smith (South Ontario):

Q. Are Canadians on a visit to the old country inspected on their way back in the same way as immigrants?

A. If they are on a visit to the old country, and if they are Canadian born or have been in Canada long enough to be domiciled they are provided wih a certificate. If you are going to the Old Country on a third-class ticket, when you purchase your ticket say at Toronto or London or Hamilton the agent has a certificate that he will give you, and which you sign in his presence. You put that ticket in your pocket and when you come back you simply present that certificate which says that you are a Canadian, and there is no inspection for you at all. If you do not get that ticket it is the fault of the ticket agents in Canada.

By Mr. Sutherland:

Q. Are the immigrants for the Maritime provinces placed from the ports of landing?

A. Yes.

Q. At the beginning of last year, 1911, the Ontario government were loaning money to farm labourers to come out here?

A. Yes.

Q. And you had a request from the Ontario department to allow an official of that government to interview these men who were coming to Ontario at the port of landing with the view of placing some of them in eastern Ontario. Now, you say these men are placed in the maritime provinces in that way. Here is a letter from you in which you said:

> I regret being unable to comply with your request in the matter of stationing one of your officers at the port of Quebec. We have been obliged to refuse this privilege on a good many different occasions, and I am afraid to open the door now would only result in confusion.

A. I may say that the object of that was this: We had received applications from every province to place their own officers at the ocean ports to interview immigrants. Now, if an immigrant was going to Ontario and we allowed an officer from Manitoba or Saskatchewan in the building he would naturally try to induce that immigrant to go further west, while an Ontario officer might try to induce a man booked for the west to go to Ontario. It was only to prevent confusion.

Q. If he were booked to Ontario there would be no occasion to ask him to go to western Canada. Now, in this case in Ontario it was done with the object of sup-

plying people to eastern Ontario, so that they would not have to go to Toronto and be sent back here, yet that request was refused?

A. It was refused, yet the Ontario government did have an officer at Quebec, Mr. Tutt.

Q. An agent was sent down and was informed that he would not be allowed to interview the immigrants there, the Canadian Northern people offered him facilities and yet he was denied admission to the building for the purpose of interviewing the immigrants that had received loans from the Ontario government and were coming here, although they asked that we be allowed to interview them so as to avoid the necessity of sending them back east from Toronto.

A. This particular man Davidson, whose case I cited, is one of those particular instances, they were originally ticketed to Toronto.

Q. Yes, why was he ticketed to Toronto? It would necessitate having to send him back again?

A. They were absolutely not fitted for one another.

Q. I am speaking with regard to loans which they received, loans from the Ontario government?

A. I do not know anything about loans, all that I know is that a great many that got loans, or to whom loans were advanced by the booking agents, never went to farm work.

Q. Not a very large proportion, a very small proportion.

A. Well, I have your letter, Mr. Sutherland, there are a great many of them.

Q. I stated in my letter that the proportion was very small.

A. Would you like me to read your letter, Mr. Sutherland?

Q. You are at liberty to read it.

By Mr. Armstrong (North York):

Q. What effect would it have if the remuneration of the local distributing agents were increased and if it were made conditional that they must locate so many men before they could draw that remuneration?

A. That would be an impossibility. You cannot tell how many immigrants are coming in; this year we hope to get 400,000.

Q. But it would induce them to work?

A. If I were a member representing a constituency that suffered because of the inactivity of the agent I would see the Minister.

Q. I was just wondering whether it would not have a tendency to increase the number of men placed.

A. If the agent is a good active man he can make anywhere from $400 ot $600 a year which is pretty good for an old retired farmer.

Mr. HENDERSON.—In reference to that I would like to ask a question. A man is sent out to the town of Milton, for instance, where this man Hartley operated, and as I say, operated very successfully, and is sent out by the agent to a farmer two miles out of town. On the road the immigrant meets a farmer who asks him where he is going and the immigrant replies, 'I am going over to John Brown's, I have come from the old country and I am going to work for him.' The farmer inquires further and ascertains that Mr. Brown is going to pay this man $12 a month, and as he is in need of help offers the man $15 a month to work for him. The man accepts his offer and does not go to Mr. Brown at all. Now what becomes of the employment agent, does he get the $2?

A. If the man goes to a farmer he does.

Q. But supposing the agent loses track of him?

A. In that case when John Brown doesn't get the man who has been sent to him he notifies the agent that the man has not turned up and the agent immediately gets busy to find out were the immigrant has gone to.

Mr. Armstrong (North York):

Q. Have these agents the power to appoint sub-agents?

A. No.

Q. They have not?

A. They may carry on the business as they like.

By Mr. Turriff:

Q. In these cases where an agent has done nothing for a number of years if the member writes to the Minister and points out that fact and asks that the agent be dismissed action will be taken, will it not?

A. He will be dismissed and another appointed, I have no doubt another may be appointed.

Mr. HENDERSON.—It is not necessary to ask for the dismissal of an agent, but merely to ask that another one be appointed, you can allow the old drone to sit down there and enjoy the honour of being a government agent, if he desires it, whilst the other man gets the work and makes money by placing men where they are required. It is not necessary to dismiss the inactive agent.

By Mr. Steele:

Q. One of the difficulties in our part of the province is that men who have no experience whatever on the farm are sent to farmers as farm labourers. The farmer does not know anything as to the man's experience when he engages him, and he puts up with him for a month or so, but in the end he has to let him go because he is not adapted to the work and the season is then too late for him to get another man at all. I have often wondered why that kind of man is sent to the farmer at all?

A. The farmers ask for that class of man, he is cheaper.

Q. It is not always that way. I wonder whether the fact that farm labourers are admitted without the $25 encourages these young men to book as farm labourers although they have not much experience?

A. I do not think so. Now if you will notice the list of applications, we will take the man at Cowansville, Que., who reported to me that he required thirty single experienced men, wages according to ability, and 30 single inexperienced men, wages according to ability. You must remember that only 7 per cent of Great Britain is a rural farming population and the agents send over a large number of immigrants from other classes although we endeavour to get the best men from the rural districts, people who are used to farming, and we are also very glad to get people who are used to handling horses, such as carters, or any other class of men who are accustomed to handling horses.

Q. Can you tell me the number of agents that you have in Bruce county, and also the number of men that were placed there in 1911?

A. I have it in the office, but I haven't it here.

Q. Can you tell me what salary Miss Rothwell gets, what she is paid?

A. She is paid, as I explained this morning, $5 for each domestic she brings out, and $2 for placing them with some family.

Q. And she pays her own expenses to England?

A. Yes, of course she also receives the steamship company's commission, we pay her nothing else.

By Mr. Sutherland:

Q. Do you get a special rate for these agents on the steamships?

A. We do.

Q. What rate do you get?—A. $50.

Q. Return?

A. Single, it used to be $30 but they increased it lately, but that is first-class passage.

By Mr. Henderson:

Q. But take the *Lake Champlain,* for instance, you can go cheaper than that on that ship?

A. But the farmer delegates going over for the Government do not travel on the cheap boats.

Q. But that boat is good enough for members of Parliament. I found myself very comfortable on the *Lake Champlain,* and I found a number of very prominent men from the province of Ontario travelling the same way.

By Mr. Morphy:

Q. In my section of the country the farmers who employ a man and his wife are building a little house for them on the farm: is that practice spreading generally over the province of Ontario?

A. It is spreading very rapidly. If you will notice these lists, which I will leave here, show that the employment agents are asking for quite a number of married couples, and the agent, as I explained this morning, is advised by the booking agent in the Old Country that he is sending out a man and his wife, who are sailing on a certain boat—as you know all steamship tickets are purchased in the Old Country at least thirty days before the boat sails. The booking agent writes to the employment agent that he is sending a man and his wife, and he describes them by the necessary form, and it enables the employment agent to look around amongst the farmers in the district to find some one who will have that man and his wife and family. Very often they have the old original house standing on the farm which they have vacated for a new house, and they fix it up, put a few bits of furniture in so that when the man and his wife and children arrive they have a shelter.

Q. My information leads me to believe that that practice is the direct outcome of unsatisfactory conditions of employing men who will not stay. If the Department directed their attention to cutting out the class of immigrants that gives rise to these married men being employed and devoted their mind to the married class don't you think it would be better? If the practice is a good one, should not the Department take it up themselves and impress it on the minds of agents?

A. We do.

By Mr. Sutherland:

Q. Have you a special contract with these farming delegates? Are they required to devote their whole time to the work of the Department?

A. They are supposed to.

Q. Have you a contract to that effect?

A. We write a letter stating that they have been appointed for a certain length of time to do certain work.

Q. They do not sign a contract?

A. No.

Q. Do you know whether these delegates have been employed in other capacities when they have been over in the Old Country?

A. I could not say. I know they all report when they come back.

Q. My information is that some of them have been in the employment of others at the same time?

A. I have no knowledge of that.

Q. Have you any report from your assistants in England as to the work they are doing; are they keeping in touch with them from day to day?

A. Not from day to day. We do not get a report every day. They report when their time is up; before we setttle up and pay them their salaries, we expect to get a written report as to what they have done. Like any other class of people, there are good ones and poor ones. Some of them are very energetic and enthusiastic.

APPENDIX No. 3

Q. Is this circular sent out by your assistant in London, giving the number of men required by the local agents, sent to the 3,000 different booking agents?

A. Yes.

Q. Then a booking agent knows that this circular has been sent to all the other booking agents, and it is possible that a dozen or fifty or one hundred might be sending these men to the same places?

A. On the front of the circular it is stated,—'You may accept this circular as an assurance by the Department that should a greater number present themselves for one particular agent than his needs then require, the surplus will be diverted by the Governments agents at the port of landing to positions of equal value elsewhere.

Q. Is it not a fact that letters have appeared from immigrants in *John Bull* for instance, and circulated broadcast all over Great Britain, condemning the system, and pointing out that they have gone to a certain agent and that they have then come out to Canada and found that there were no places for them. I know of dozens of instances of that kind where the Ontario Government agents have placed men who have come out in that way?

A. I would like to have the names when you speak of our agents. I have a great many instances where the immigrants never went near farm work at all.

The CHAIRMAN.—It is moved by Mr. Best, seconded by Mr. Bowman, that the evidence given by Mr. Scott before this Committee be reported to the House.

Motion adopted.

Committee adjourned.

Certified correct,

W. D. SCOTT,


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